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OF ECONOMIC TRENDS AND POLICIES IN SERBIA

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The Foundation for the Advancement of Economics (FREN)
Kamenička 6, Beograd
Tel/Fax: 011 3021 069
E-mail: office@fren.org.rs
<http://www.fren.org.rs>

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Svetozar Tanasković
Vukan Vujić

TRANSLATION

Gordana Filipović
Duška Tomanović
Uroš Vasiljević

DESIGN OF INNER PAGES

Stefan Ignjatović

PRINTING PREPARATION

Maja Tomić

COVER DESIGN

Nikola Drinčić

PRINTING OFFICE

Alta Nova

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Spotlight On 1:

Implementation of the Anti-Monopoly Policy in Serbia: Hitherto Experiences and Recommendations

Bojan Ristić

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Spotlight On 2:

Local Investment Multipliers in Serbia

Duško Vasiljević, Sanja Govorušić

This text presents findings of an empirical study into the effects of investment into several municipalities and industries. The study has shown that a better understanding is required of indirect effects of investment, since these often outweigh direct effects that are generally taken as the sole criterion in designing incentives. 81

Analytical and Notation Conventions

Values

The data is shown in the currency we believe best reflects relevant economic processes, regardless of the currency in which it is published or is in official use in the cited transactions. For example, the balance of payments is shown in euros as most flows in Serbia's international trade are valued in euros and because this comes closest to the measurement of real flows. Banks' credit activity is also shown in euros as it is thus indexed in the majority of cases, but is shown in dinars in analyses of monetary flows as the aim is to describe the generation of dinar aggregates.

Definitions of Aggregates and Indices

When local use and international conventions differ, we attempt to use international definitions wherever applicable to facilitate comparison.

Flows – In monetary accounts, the original data is stocks. Flows are taken as balance changes between two periods.

New Economy – Enterprises formed through private initiative

Traditional Economy - Enterprises that are/were state-owned or public companies

Y-O-Y Indices – We are more inclined to use this index (growth rate) than is the case in local practice. Comparison with the same period in the previous year informs about the process absorbing the effect of all seasonal variations which occurred over the previous year, especially in the observed seasons, and raises the change measure to the annual level.

Notations

CPI – Consumer Price Index

Cumulative – Refers to incremental changes of an aggregate in several periods within one year, from the beginning of that year.

H – Primary money (high-powered money)

IPPI – Industrial Producers Price Index

M1 – Cash in circulation and dinar sight deposits

M2 in dinars – In accordance with IMF definition: cash in circulation, sight and time deposits in both dinars and foreign currency. The same as M2 in the accepted methodology in Serbia

M2 – Cash in circulation, sight and time deposits in both dinars and foreign currency (in accordance with

the IMF definition; the same as M3 in accepted methodology in Serbia)

NDA – Net Domestic Assets

NFA – Net Foreign Assets

RPI – Retail Price Index

y-o-y - Index or growth relative to the same period of the previous year

Abbreviations

CEFTA – Central European Free Trade Agreement

EU – European Union

FDI – Foreign Direct Investment

FFCD – Frozen Foreign Currency Deposit

FREN – Foundation for the Advancement of Economics

GDP – Gross Domestic Product

GVA – Gross Value Added

IMF – International Monetary Fund

LRS – Loan for the Rebirth of Serbia

MAT – *Macroeconomic Analyses and Trends*, publication of the Belgrade Institute of Economics

NES - National Employment Service

NIP – National Investment Plan

NBS – National Bank of Serbia

OECD – Organization for Economic Cooperation and Development

PRO – Public Revenue Office

Q1, Q2, Q3, Q4 – 1st, 2nd, 3rd, and 4th quarters of the year

QM – *Quarterly Monitor*

SORS – Statistical Office of the Republic of Serbia

SDF – Serbian Development Fund

SEE – South East Europe

SEPC – Serbian Electric Power Company

SITC – Standard International Trade Classification

SME – Small and Medium Enterprise

VAT – Value Added Tax

From the Editor



The fundamental challenge facing economic policy and reforms in Serbia is ensuring acceptable post-crisis growth of the economy and, consequently, of employment. In addition to structural reforms, covered in the previous issue of *QM*, a key factor for this to happen is reform of public spending. This reform needs to credibly demonstrate that Serbia will reduce its high budget deficit, ensure economic stability and thus attract investments. Another issue touched on in this editorial is a topical one: should the NBS alter its policy and concentrate on exchange rate stability?

Serbia's economy is expected to come out of recession this year and see growth of 2%. However, for Serbia to solve its problems – high unemployment, low wages, etc – its economy should grow at a rate of some 5% per year. Probably the main instrument the Government can use to ensure the high level of economic growth required is medium-term fiscal policy and the public spending reform associated with it, over a period of, say, the next five years. If medium-term policy is to have the desired effect on economic growth, it should be determined and politically accepted as early as this year. The ongoing negotiations with the IMF, however, seem rather to indicate that the Government is taking a short-term view, i.e. focusing on what is to happen before the next election. Movements of key public spending indicators – wages and pensions – have in essence been pushed aside as it was explained that pensions would be linked to public-sector wages, but it was never clarified how wages would rise. This issue now awaits the next round of IMF negotiations, to be held in May.

Major public spending adjustment is necessary over the coming several years. The main challenge for the coming five-year period is a substantial reduction in the government deficit, from the current level of 4% of GDP to slightly above 1%. This task is made all the more difficult by the need to, at the same time, increase investment in infrastructure, and by the fact that revenue would fall as tax rates remained the same. Future sustainable growth requires Serbia to rebalance its economy by cutting imports and consumption and raising exports and savings; this also entails a significant reduction in the tax base (consumption and imports). Therefore, the most room for reducing the government deficit is to be found in

the slower growth of public-sector wages and pensions. Both of these demand serious medium-term reform, as this segment of public spending is overinflated in Serbia if international standards are taken as a yardstick: there seems to be consensus over the fact that the share of pensions in GDP needs to be cut from 13%, where it is now, to 10% in 2015; the share of wages should drop from some 10% to 8%. But, with 2015 a long way off, it is only too easy to agree to cuts now and “wing it” later.

What is then to be done? One example of good global practice is to enact legislation containing fiscal rules to first ensure the requisite reduction in the government deficit and then keep it at an acceptable level (see Highlights 1, Arsić, M, “Strengthening fiscal responsibility by introducing fiscal rules”).

These rules would be binding on both this and any subsequent government, and should prevent an occurrence that has already been recorded – political public spending cycles linked to elections. The budget deficit would rocket (from 5% to 8% of GDP) in the quarters immediately preceding or following every election to date. The stage seems set for this to happen in the run-up to the 2012 election, as the agreement with the IMF expires in mid-2011, leaving much room for manoeuvre. This must not, however, be subject to short-term political interests.

International experiences show that countries that introduced fiscal rules proved much more successful in cutting large government deficits to an economically desirable level. Thus, accepting fiscal rules is an expression of readiness to carry out the required public spending reforms and cut the deficit over the coming five years, as well as increasing the likelihood of these reforms actually taking place. This will then serve as a credible signal to foreign and domestic investors – that the economic environment in Serbia will remain stable, i.e. inflation-free, without major slides in the value of the dinar, etc. All this should result in greater investment levels and attendant high economic growth the country so sorely needs. The alternative to this is uncertainty as to whether government spending can be brought and kept under control, and therefore hesitation on the part of many investors to invest in Serbia. Fiscal rules would

also make it possible to organize Serbia's public sector in line with European Union standards, which would make it significantly easier for Serbia to join the EU.

The slide of the dinar during the crisis, and especially in recent months (with a drop of some 6.5% seen from November to February), has raised the question of the role of the NBS in maintaining exchange rate stability. Basically, the central bank can keep either inflation or the exchange rate under control – but cannot rein in both at the same time. The former regime entails a flexible, and the latter a fixed exchange rate (including variable exchange rate following pre-determined rule). Empirical evidence from the current crisis have come down decidedly in favour of the flexible exchange rate – economies with fixed exchange rates saw the greatest falls in production, primarily the Baltic states, with one even recording a fall greater than that seen by the United States during the Great Depression of 1929-1933. Bulgaria, too, its exchange rate firmly fixed, is expected to see an overall fall of 9%, while Serbia is to record a fall of under 4%. Interestingly, Croatia, sometimes held up as a good example of a stable (though not fixed) exchange rate policy, saw a fall in production of over 5%, and is expected to face stagnation in 2010, unlike Serbia. These ad hoc comparisons in favor of a flexible exchange rate have also been borne out by an exhaustive cross-country estimation.

Countries with flexible exchange rates will find it easier to emerge from the crisis, although this too will certainly prove painful. A drop in the value of the national currency can boost international competitiveness on the one hand, and cut domestic consumption on the other – two necessary prerequisites for post-crisis economic growth. This beneficial process of weakening of the national currency is just now occurring in Serbia. On the other hand, countries with a firmly fixed exchange rate lack this ability to depreciate their currencies, and would have to cut absolute wages to boost competitiveness and reduce consumption. Using the Baltic nations as an example, this entails a cut in public-sector wages of 10 to 20 per cent, a truly drastic measure. With Serbia finding it difficult to keep wages frozen at the nominal level, it is not hard to imagine the fate of any proposal calling for a nominal cut in wages, as would be dictated by a fixed exchange rate regime.

The National Bank of Serbia should therefore keep to its current inflation targeting regime, and act primarily

to prevent major fluctuations as far as the exchange rate is concerned. This means that the NBS should let the exchange rate run its own course and thus let it stabilize at a level that will foster a move away from large-scale imports and consumption to greater exports and more savings. Wage growth was nearly stopped during the crisis, even seeing a drop in real terms in the public sector due to the freeze. This, together with a drop in the value of the dinar, led to a substantial rise in the competitiveness of Serbia's economy (see Section 2, Economic Activity). If the future were to see moderate wage growth, i.e. up to the level of the rise in productivity, there would be no substantial pressure against the dinar in order for competitiveness on the international stage to be achieved. This again brings us to reform of the public sector and control of its wages. The public sector employs over a third of all people employed ("in legal entities"), or a quarter of all those holding down a job of any kind, which makes movements in wages in this sector a substantial influence of both overall wage movements and earnings in the private sector.

Spotlight On 1 (Ristić, B.), "Implementing anti-monopoly policy in Serbia: Experiences and recommendations", demonstrates that Serbia is lagging behind countries in the region, and that weaknesses remain regardless of improvements brought about by the new 2009 law. Spotlight On 2 (Vasiljević, D, and Govorušić, S.), "Local multiplier effects of investment in Serbia", presents the results of empirical research into the effects of investment into several municipalities and industries. The research has shown that a better understanding is required of indirect effects of investment, since these often outweigh direct effects that are generally taken as the sole criterion in designing incentives.

Highlights 1 (Arsić, M.) deals with a topic important to this issue of *QM* – reasons for introducing fiscal rules in Serbia – and presents a tentative, rough outline of the rules that might be suitable for Serbia. Highlights 2 (Avlijaš, S.) examines the characteristics of informal employment in Serbia in the 2000s, as well as its reactions to the current economic crisis when contrasted with those exhibited by formal employment.



TRENDS

1. Review

Following a sharp contraction in the first half of the year, the fourth quarter (Q4) 2009 continued the trend of economic stabilization and modest recovery seen since Q3 – seasonally-adjusted GDP and industrial production rates recorded in Q4 were positive, albeit low. Both domestic and export demand have been rising for the second quarter in a row. Seasonally-adjusted values indicate a slight recovery in exports in relation to the preceding three quarters, although to a level lower than in Q4 last year. Lending by banks is also seeing an upswing, with loans to both households and business growing. The consolidated fiscal deficit was somewhat better than expected in Q4, making the overall deficit in 2009 lower than had been agreed with the IMF.

Still, recovery will be neither quick nor easy: the crisis has left the Serbian economy deeply scarred. Total **decline in GDP** in 2009 amounted to some 2.8%, a great deal less than what we had estimated in early 2009. When compared to other countries, in an environment dominated by the global downturn, the fall in GDP recorded by Serbia was modest, especially when the country is compared to nations with any form of a fixed exchange rate. The floating exchange rate absorbed shocks to a great extent and made it possible to adjust to a lower level of economic activity with a relatively modest fall in GDP. The drop in economic activity amounted to some 0.9% at the y-o-y level in Q4, much less than in the first half of the year, when y-o-y GDP slumped by some 4.2%. Seasonally-adjusted GDP growth rate shows that in Q4 economic activity grew by some 0.6% in relation to the previous quarter. Seasonally-adjusted data indicate that the level of industrial production was higher in Q4 than in Q3, but also that industrial production virtually stabilized at the September level. The fourth quarter has therefore seen slight economic recovery that began in the previous quarter; the pace of this recovery, however, seems to indicate that 2008 production levels will in all likelihood not be regained even in 2010.

Although Serbia's GDP slid less than that of other countries in the region, the **labor market adjusted** rather sharply. Employment has been falling drastically since the crisis began – the economy has shed nearly 200,000 jobs, with employment figures plunging to their lowest level in several decades; the employment rate fell by as much as 3.3 percentage points. Since the crisis began the unemployment rate rose to 17.4%, with many people out of work now belonging to the “inactive” category. The market seems to have mostly adjusted to an environment of reduced economic activity, meaning that 2010 is unlikely to see such strong downward pressures on employment as 2009. **Real wages** remained much the same in Q4 2009 as in Q4 2008, while the y-o-y real growth in gross wages in 2009 amounted to 1%. Wages in the public sector continued to fall in real terms due to the wage freeze instituted by the government; this measure was, however, not consistently implemented in December 2009.

A consequence of the large drop in employment, accompanied by the retention of the overall level of production, was a rise in productivity seen in the second half of 2009. This, alongside the mild real depreciation of the dinar, led to a sharp drop in unit labor costs (ULCs) expressed in euros. Euro-ULCs have now started to approach levels seen in 2004 and 2005, i.e. levels recorded before major expansion in capital inflows from abroad and the attendant increase in the current account deficit. These euro-ULC levels could mean a major increase in the price competitiveness of Serbian exports and create preconditions for alleviating the high trade deficit that was the primary source of the Serbian economy's macroeconomic imbalance before the crisis struck. Greater export growth should contribute to a rise in the GDP growth rate, which is necessary for creating new jobs and making up the shortfall in overall employment that came into being in 2009.

Seasonally-adjusted values indicate a slight recovery in exports in relation to the preceding three quarters, but still to a level lower in relation to Q4 2008. The **current account balance** in Q4 2009 stood at a negative 5.6% of GDP, recording a greater share in GDP than in Q2 or Q3. The goods deficit seen over the last three months of 2009 was also higher than the two quarterly values recorded previously. Both deficits were very low due to recession in 2009, but, bearing in mind the gradual increase in activity and the likely exit of the economy from recession, we expect that they will further increase in 2010.

In addition to export demand, domestic demand has been rising for the second quarter in a row, with domestic demand leading the way to a certain extent. Although overall demand was down some 2.6% in real

terms in Q4 on the same period one year before, the decline was lower by some eight percentage points in relation to Q3. Even when the effects of comparison with a somewhat lower 2008 base are excluded, Q4 is seen to have recorded relatively robust recovery in demand. If movements in aggregate demand since the beginning of the crisis are considered, it becomes apparent that, after one year of strong reduction in the share of aggregate demand in GDP, this trend was first halted in Q3 and then reversed in Q4. Movements and structure of aggregate demand confirm the existence of preconditions for a more lasting recovery in economic activity, but also bear out the fact that any such recovery will in all likelihood not be particularly robust. The medium term is, therefore, not very likely to see high aggregate demand growth rates and the attendant growth in economic activity similar to pre-crisis levels.

Due to low aggregate demand, 2009 also saw relatively low **inflation**. Overall inflation in Serbia (as measured using the Consumer Price Index, or CPI) stood at 6.6% at year-end 2009, close to the lower edge of the NBS target band (6 to 10 per cent). On the other hand, price growth in 2009 was for the most part spurred on by administratively-controlled prices and the rising costs of oil products. The fact that recession has completely halted inflation was again borne out in Q4 2009. Overall inflation, as measured using the CPI, amounted to a mere 0.4% in Q4, or 1.6% when annualized, while underlying inflation (CPI excluding prices of food, energy, alcoholic beverages and tobacco) stood at 3.2% when annualized in Q4 (its level in Q3 was 5.8%, while the figure for the first half of the year was over 10%). Low Q4 inflation was primarily caused by deflationary effects of falling aggregate demand and food prices. January data indicate that overall inflation remained low (with prices rising by 0.5% relative to the preceding month), but that a slight increase in underlying inflation was apparent (0.6% relative to the preceding month). It is only after February data become available that we will be able to estimate whether a change in the trend is occurring.

Inflation will most likely remain close to the lower edge of the target band in the first half of 2010, and will then approach the middle of the band, of 6 ± 2 per cent in late 2010. The key risk associated with forecasting short-term inflation is exchange rate pass-through.

The exchange rate of the dinar was very stable in the first half of Q4, followed by a depreciation of the Serbian currency starting in mid-November and extending into January and February 2010. The overall slide of the dinar against the euro amounted to some 6% in Q4 2009 and the first two months of 2010. The NBS intervened twice in December 2009 (to the tune of €100 mn in total), doing so again in January and February (using some €450 mn). In real terms, the dinar was weaker by 14% against the euro at year-end 2009 in relation to the level seen in September 2008 (the beginning of the financial crisis), while the slide amounted to just around 2% relative to Q1 2008 levels.

Fiscal policy should also contribute to redressing macroeconomic imbalances. This should be focused on reducing the overall deficit and bringing the structural deficit to a sustainable level (i.e. around 1% of GDP). Relatively high overall and primary fiscal deficits indicate that **fiscal policy** substantially alleviated the drop in domestic demand, economic activity and employment in 2009. However, attention must be paid to the issue of public debt – there is a danger that Serbia's public debt will grow considerably over the coming period, while its sustainability will depend to a great extent on movements in GDP and the real exchange rate of the dinar. Great restraint is therefore recommended in deciding whether Serbia should incur new debt over the coming several years. The fact that most of 2009's fiscal deficit was met through government borrowing in the domestic market does not substantially lessen the major positive anti-cyclical action of fiscal policy. In a high-risk environment, such as that which prevailed in 2009, banks were unwilling to provide major loans to businesses and households, meaning that government borrowing meant an increase in overall lending rather than a squeezing-out of the private sector from the financial market.

The positive trend of recovering **lending** by the domestic banking sector has continued in Q4, which saw an increase in loans granted to businesses and households. The most significant sources of these loans were foreign-currency deposits of households and, to a lesser extent, businesses. As in Q3, banks have continued following a trend of increasing foreign borrowing in a return to this once-dominant source of funding new loans. The financial account of the balance of payments also shows the high level of other investments, mainly made up by financial loans – for the most part short-term credits taken out by the banking sector, as well as the second tranche of the IMF loan granted to the government.

There is still room for relaxing monetary policy, as aggregate demand remains low. A further cut in the reference interest rate is more likely than its remaining at the current level of 9.5% – although rate cuts may be less aggressive than in the recent past. It is interesting to note that the 2.5 percentage point cut

in Q4 did not have a direct impact on repo investments – this is borne out by a renewed increase in repo investments in January 2010. The drop in repo investments in Q4 was primarily caused by December's substantial fall that was seasonal in character (reflecting banks' seasonal liquidity needs).

Values of Belgrade Stock Exchange **indices fell** in Q4 2009. The BELEX15 index lost some 20% of its value in Q4 only to grow by 3% in January 2010. Indexes of regional stock exchanges also slid in Q4, generally slightly less than the Belgrade Stock Exchange, and also saw slight recovery in early 2010. As global stock exchange indices rose in Q4, we can surmise that investors are still withdrawing from Serbia's stock exchange and markets throughout the region.

Serbia: Selected Macroeconomic Indicators, 2004-2009

	Annual Data						Quarterly Data							
	2004	2005	2006	2007	2008	2009	2008				2009			
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Prices and the Exchange Rate														
							y-o-y ²⁾							
Consumer Price Index	10.1	16.5	12.7	6.8	10.9	8.4	11.3	12.0	10.7	8.9	9.8	10.1	7.9	5.9
Retail Price Index	7.9	14.8	10.3	3.9	9.0	10.1	6.4	9.1	10.2	10.5	11.3	9.9	9.4	9.2
Real fx dinar/euro (avg. 2005=100) ³⁾	100.5	100.0	92.1	83.9	79.7	84.1	82.5	79.7	75.0	81.7	86.0	84.3	82.6	83.5
Nominal fx dinar/euro (period average) ³⁾	72.62	82.92	84.19	79.97	81.46	93.90	82.65	81.07	77.12	85.02	93.71	94.17	93.24	94.47
Economic Growth														
							y-o-y, real growth ²⁾							
GDP (in billions of dinars)	1,384	1,687	1,980	2,363	2,791	2,971	..	..	..	..	..	..	..	..
GDP	8.2	5.6	5.2	6.9	5.4	-2.8	8.5	6.0	4.9	2.8	-4.2	-4.2	-2.3	-0.9
Non-agricultural GVA	6.6	6.8	7.5	8.7	5.4	-2.5	8.3	6.3	5.0	2.5	-3.8	-3.6	-2.1	-1.0
Industrial production	7.1	0.8	4.7	3.7	1.1	-12.1	6.0	2.3	1.0	-5.0	-17.0	-17.8	-10.6	-3.8
Manufacturing	9.7	-0.7	5.3	4.2	0.7	-15.8	4.4	3.7	0.4	-6.0	-22.6	-21.6	-14.6	-5.4
Average net wage (per month, in dinars) ⁴⁾	14,108	17,478	21,745	27,785	29,174	31,758	26,814	28,846	29,435	31,599	30,120	31,808	31,737	33,366
Registered Employment (in millions)	2.047	2.056	2.028	1.998	1.997	1.882	1.995	2.002	1.998	1.993	1.981	1.850	1.835	1.861
Fiscal data														
							in % of GDP							
Public Revenues	41.2	42.1	42.4	42.1	41.5	38.6	7.6	5.2	2.8	-0.7	-12.6	-13.4	-4.2	-5.0
Public Expenditures	40.0	39.7	42.7	42.8	43.7	42.7	3.8	21.7	-0.4	-3.5	-3.4	-6.0	-0.3	-9.2
							in billions of dinars							
Overall fiscal balance (GFS definition) ⁵⁾	17.5	14.8	-33.5	-58.2	-68.9	-121.8	8.0	-19.6	-5.9	-51.3	-11.7	-44.3	-21.4	-40.0
Balance of Payments														
							in millions of euros, flows ²⁾							
Imports of goods	-8,302	-8,286	-10,093	-12,858	-14,964	-10,760	-3,479	-3,953	-3,953	-3,579	-2,596	-2,609	-2,642	-2,913
Exports of goods	2,991	4,006	5,111	6,444	7,416	5,978	1,672	1,972	2,054	1,717	1,291	1,536	1,550	1,602
Current account ⁶⁾	-2,197	-1,805	-3,137	-4,994	-6,089	-1,743	-1,279	-1,800	-1,485	-1,525	-818	-175	-278	-472
in % GDP ⁶⁾	-11.6	-8.6	-12.9	-17.2	-17.8	-5.5	-16.8	-20.7	-16.1	-17.5	-11.4	-2.2	-3.4	-5.6
Capital account ⁶⁾	2,377	3,863	7,635	6,126	6,180	1,860	1,385	1,769	1,444	1,582	816	204	302	537
Foreign direct investments	773	1,248	4,348	1,942	1,824	1,372	831	656	1,444	1,582	211	643	251	113
NBS gross reserves (increase +)	349	1,675	4,240	941	-1,687	2,363	32	-309	279	-1,689	-240	880	716	1,007
Monetary data														
							in millions of dinars, e.o.p. stock ²⁾							
NBS net own reserves ⁷⁾	103,158	175,288	302,783	400,195	475,110	578,791	420,508	417,579	440,936	475,110	502,606	489,062	528,439	578,791
NBS net own reserves ⁷⁾ , in mn of euros	1,291	2,050	3,833	5,051	5,362	6,030	5,109	5,287	5,757	5,362	5,303	5,234	5,681	6,030
Credit to the non-government sector	342,666	518,298	609,171	842,512	1,126,111	1,306,224	908,598	953,977	1,018,307	1,126,111	1,215,843	1,218,702	1,245,735	1,306,224
FX deposits of households	110,713	190,136	260,661	381,687	413,766	565,294	410,836	419,824	431,261	413,766	450,852	461,401	482,827	565,294
M2 (y-o-y, real growth, in %)	10.4	20.8	30.6	27.8	2.9	9.8	26.2	19.2	13.3	2.9	-3.2	2.1	0.9	9.8
Credit to the non-government sector (y-o-y, real growth, in %)	27.3	28.6	10.3	24.9	25.2	5.2	22.0	16.2	17.8	25.2	21.7	16.4	11.8	5.2
Credit to the non-government sector, in % GDP	23.9	29.6	28.6	35.0	42.0	45.8	36.9	37.4	38.3	42.0	45.9	45.8	44.5	45.8
Financial Markets														
BELEXline (in index points) ⁸⁾	1,161	1,954	2,658	3,831	1,198	1,312	3,068	3,092	1,942	1,198	844	1,173	1,548	1,312
Turnover on BESE (in mil. euros) ⁹⁾	423.7	498.8	1,166.4	2,004.4	884.0	443.7	210.8	365.7	176.9	130.6	61.2	72.6	55.8	254.0

Source: FREN.

1) For more details (monthly series) see www.fren.org.rs.

2) Unless noted otherwise.

3) Calculation based on twelve-month averages for annual data and three-month averages for quarterly data.

4) Data for 2008 have been corrected on the basis of the widened reach of the sample used in calculating the average wage. Thus nominal wage values for 2008 are comparable with nominal values for 2009, but not with those for previous years.

5) Overall fiscal balance (GFS 2001 methodology) - Consolidated fiscal surplus/deficit adjusted for "budgetary loans" (lending minus repayment according to old GFS methodology).

6) In Q1 2008, NBS changed the Balance of Payments methodology. Due to this change, there is a drop in current account deficit, and a decrease in the capital account balance. For a more detailed explanation, see QM 12, Section 6, Balance of Payments and Foreign Trade.

7) NBS net own reserves = NBS fx reserves, net - (foreign deposits of commercial banks + government foreign deposits). For details see Monetary Flows and Policy.

8) Index value at the last day of the given period.

9) Total turnover on Belgrade Stock Exchange, includes turnover of stocks and FFCD bonds. Dinar amounts for stocks turnover are converted into euros using the average exchange rate for the given period.

2. Economic Activity

The recession was bottoming out in Q4 but economic recovery will be neither easy nor fast. The year-on-year GDP decline stood at 0.9% in Q4, but the quarter saw seasonally adjusted growth of 0.6% over Q3. The pace of economic recovery is slightly under 2% year on year, indicating that the 2008 output levels will probably not be achieved in 2010 either. Export and domestic demand grew for the second consecutive quarter and spending again began growing faster than output. Unit labor costs (ULC) declined sharply in Q4 and went back to the pre-crisis trend. The labor market appears to have largely adjusted to lesser economic activity and 2010 is unlikely to witness such strong pressures to reduce employment as 2009 did. The low value of euro-ULC in Q4 indicates that competitiveness will visibly improve after the crisis, largely because of the depreciation of the dinar. Industrial output fell less year-on-year in Q4 (by 3.8%) than in the previous three quarters, partly due to the high growth of basic metals production which exceeded 30%. QM estimates that construction activity declined over 20% in Q4 year-on-year.

Gross Domestic Product

Economic activity decline in Q4 estimated at 0.9%

According to QM's preliminary estimate,¹ based on available economic activity data, the year-on-year GDP decline in real terms stood at 0.9% in Q4 (Table T2-1). The non-agricultural GVA, considered to be a more reliable measure of economic activity, recorded a similar year-on-year drop like the GDP in Q3 (1%).

The y-o-y GDP decline in Q4 was distinctly smaller than in the first three quarters of 2009, when it stood at 3.5%. This can largely be ascribed to the fact that economic activity results in Q4 are compared to the much lower base in 2008, when the economy was already hit quite hard by the financial crisis.

Seasonally adjusted indices also indicate economic recovery...

Seasonally adjusted indices, which exclude the mentioned effect, also indicate somewhat greater economic activity in Q4 than in the previous quarters. Seasonally adjusted GDP growth q/q stood at around 0.6%. As Q3 also witnessed seasonally adjusted growth over Q2 (by 1.2%), QM concludes that the economy began overcoming the deep crisis in the second half of 2009. Moreover, given that Q4 was the second consecutive quarter with seasonally adjusted GDP growth q/q, QM now also has clear 'economic' indications that the economy is leaving recession.

...albeit not too strong recovery

Seasonally adjusted GDP growth in Q4 is an indicator of the potential annual growth of economic activity. It stood at around 2.3% in Q4. QM estimates that the actual economic growth pace is nevertheless slower, slightly under 2%. Q4 was characterized by specific one-off effects on the economy, such as greater production in *US Steel Serbia*, which should not be seasonally adjusted. The influence of basic metals production on the GDP was particularly striking in Q3, when *US Steel* restarted production that had been brought almost to a halt. Seasonally adjusted quarterly GDP growth then stood at as many as 1.2%, or 4.8% seasonally adjusted, but QM immediately warned that the real pace of economic recovery was much slower.²

Apart from corroborating that Serbia's economy is finally overcoming recession, Q4 is a harbinger of other, less welcome news – that economic activity recovery will be neither easy nor fast. The seasonally adjusted indices of growth in Q4 are not high and, judging by everything, did not accelerate over the previous quarter. They indicate that Serbia's economy is entering 2010 with an

¹ The methodology used to estimate the GDP is based on the methodology of the Statistical Office of the Republic of Serbia (SORS). The real growth of gross value added of individual sectors of the economy is estimated by activity and the tax component is added to the sum of these estimates. Modifications of the SORS methodology are partly related to the indicators on the basis of which sectoral growth is estimated and which the QM authors consider to be more reliable indicators of real sectoral growth in specific cases (e.g. cement production in the construction industry). Also, given that QM authors have fewer indicators at their disposal than the SORS, their estimate also includes indirect indicators which are not a composite part of the official statistical methodology. QM authors also conduct deeper analyses of trends in individual sectors and a demand analysis.

² See QM 18, Economic Activity for more details.

annual growth rate under 2%. One therefore needs to exercise extreme caution when interpreting the considerable differences in y-o-y GDP indices. Particularly given that y-o-y indices in Q1 2010 will be compared with those in Q1 2009, when economic activity was minimal. In this case, there is all the more justification to analyze the changes in seasonally adjusted values vis-à-vis the preceding quarter rather than the same quarter of the preceding year.

Table T2-1. Serbia: Gross Domestic Product, 2005-2009¹⁾

	Y-o-y indices													Base index 2009/ 2002	GDP share 2009
	2005	2006	2007	2008	2009	2008				2009					
						Q1	Q2	Q3	Q4	Q1	Q2	Q3 ²⁾	Q4 ²⁾		
Total	105.6	105.2	106.9	105.4	97.2	108.5	106.0	104.9	102.8	95.8	95.8	97.7	99.1	135.2	100.0
Taxes minus subsidies	110.2	99.8	109.5	104.2	94.0	109.9	104.4	102.1	101.7	92.2	90.8	94.7	98.0	140.7	15.8
Value Added at basic prices	105.0	106.4	106.5	105.8	98.0	108.3	106.5	105.6	103.2	96.7	97.1	98.5	99.5	134.7	84.2
Non agricultural Value Added	106.8	107.5	108.7	105.4	97.5	108.3	106.3	105.0	102.5	96.2	96.4	97.9	99.0	139.5	87.8 ³⁾
Agriculture	95.1	99.8	92.2	109.1	102.5	109.0	108.3	109.8	109.0	101.4	103.0	102.4	103.0	107.8	12.2 ³⁾
Manufacturing	99.9	105.6	104.8	101.3	85.0	104.7	104.6	101.0	95.6	79.1	80.0	85.9	94.5	97.3	13.7 ³⁾
Construction	102.0	107.7	110.8	101.7	83.7	104.8	105.7	99.8	96.6	86.0	83.4	81.5	80.0	122.0	3.2 ³⁾
Transport, storage and communications	123.4	129.3	120.1	112.9	107.1	118.0	115.7	110.8	108.4	104.0	107.4	108.5	108.0	292.7	17.9 ³⁾
Wholesale and retail trade	122.0	110.3	119.9	107.1	91.6	111.6	105.8	107.6	104.3	93.7	91.5	91.4	90.0	206.0	12.7 ³⁾
Financial intermediation	111.9	112.2	115.6	110.2	105.3	114.3	110.1	108.9	108.3	106.1	105.9	104.2	105.0	180.6	5.1 ³⁾
Other	102.1	100.6	101.5	103.1	101.3	104.6	102.8	103.2	102.1	101.0	101.2	101.7	101.4	113.8	35.3 ³⁾

Source: SORS.

1) At constant prices in 2002.

2) QM estimate.

3) Share in GVA.

Manufacturing industry contributed most to lesser GDP decline

Observed by activity, the deepest year-on-year decline in output was again recorded in construction (around 20%), while the greatest positive changes were again recorded in the manufacturing industry (Table T2-1). The y-o-y decline in the manufacturing industry was by as many as 6.5 percentage points lower in Q4 than in Q3 (3.5% seasonally adjusted growth of the manufacturing industry in Q4 over Q3) and actually contributed the most to the considerably lesser y-o-y GDP decline in Q4 than in Q3. The year-on-year drop in wholesale and retail trade stood at around 10%, while the transport and telecommunications sector again had the highest positive growth rates, estimated at around 8% in Q3.³

2009 GDP decline probably deeper than the official 2.8%

The total GDP decline in 2009 stood at around 2.8%, much less than the decline QM projected in early 2009.⁴ The fact that the Statistical Office of the Republic of Serbia GDP estimation methodology is rife with weaknesses, as noted in previous QM issues, should not, however, be disregarded.⁵ The real decline in economic activity in 2009 was probably 1.5-2 percentage points higher than the official estimate and stood at around 4.5%. Nonetheless, QM has opted for using official economic activity assessments of economic activity movement.

The dynamics of economic activity throughout 2009 reveals two different trends – sharp decline of output in the first two quarters and onset of recovery in the latter half of the year. Although the record-high production achieved in the first half of 2008 will be impossible to reach with the present growth rates, the negative trend that began back in Q3 2008 was finally reversed after one year, in Q3 2009.

Visible growth of demand

The year-on-year growth of domestic and export demand is presented in Table T2-2. Q4 saw a considerable drop in the y-o-y decline in demand over Q3. Overall demand in Q4 was 2.6% lower than in Q4 2008 in real terms, while its year-on-year decline over Q3 was around 8 percentage points smaller (Table T2-2). The relatively solid recovery of demand in Q4 is obvious, even when the effects of comparison with the somewhat lower base in 2008 are discounted.

3 The high growth of the transport and telecommunications system can also be ascribed to the inadequate estimation methodology. For more, see Highlights 2 How Much Has Economic Activity Really Declined in 2009?, QM 17.

4 We projected that the GDP would fall by around 5%.

5 See Highlights 2, QM 16.

Table T2-2. Serbia: Growth of Aggregate Demand and Components, Contributions to Growth, 2005-2009

	2006	2007	2008	2009	2008				2009			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Y-o-y indices												
GDP	105.2	106.9	105.4	97.2	108.5	106.0	104.9	102.8	95.8	95.8	97.7	99.3
Aggregate demand	109.3	110.3	107.7	91.9	109.9	112.0	107.6	101.3	93.0	87.7	89.3	97.4
Domestic demand	106.0	106.9	106.3	94.0	107.4	110.4	106.2	101.2	96.8	89.1	91.6	98.4
Export demand	125.1	125.6	113.3	83.3	120.4	118.2	113.2	101.6	78.4	81.8	79.8	93.3
Contributions to Growth (Fall) of Aggregate Demand (%)												
Domestic demand	46.7	55.0	67.9	55.3	60.3	69.7	64.4	77.1	36.6	70.8	62.4	51.5
Export demand	53.3	45.0	32.1	44.7	39.7	30.3	35.6	22.9	63.4	29.2	37.6	48.5

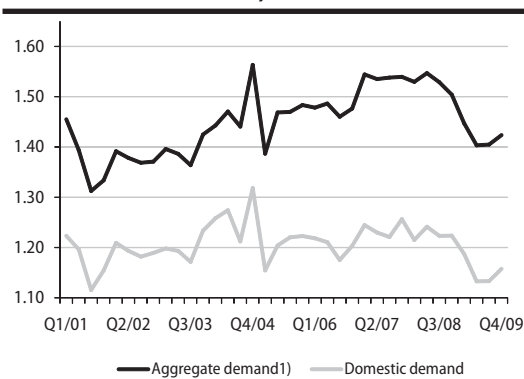
Source: QM based on NBS and SORS data.

When viewed by aggregate demand components: domestic demand was around 1.6% and export demand around 6.7% lower in real terms in Q4 compared with the same period in 2008 (Table T2-2). Obviously, both domestic and export demand visibly recovered in Q4, domestic demand the more so.

Graph T2-3 presents the ratio of (aggregate and domestic) demand and production. Movement of aggregate demand shows that the year-long trend, during which the share of aggregate demand in the GDP sharply fell, first halted in Q3 and then reversed in Q4. The movement and structure of aggregate demand corroborate the basic theses expounded in the analysis of GDP growth: (1) there are conditions for the onset of more permanent economic activity recovery, and (2) this recovery will probably not be particularly strong.

Additional arguments corroborating these theses were arrived at by analyzing not only the pace of growth, but the structure of aggregate demand as well. The latter indicates that domestic demand contributed to the recovery in the latter half of 2009 to a somewhat greater degree than exports. Given that exports are not growing particularly fast and the limited possibilities for financing domestic demand, the growth of aggregate demand will be moderate at best. It is, therefore, not very likely that the pre-crisis high aggregate demand growth rates and, thus, economic activity growth, will be achieved in the medium term.

Spending growing at somewhat faster pace than production

Graph T2-3. Serbia: Aggregate and Domestic Demand to GDP Ratio, 2001-2009

Source: QM based on NBS and SORS data.

1) aggregate demand = domestic demand + exports.

Graph T2-3 also presents the ratio of spending and production (domestic demand and GDP) warranting special attention. Spending was 15.7% higher than production in Q4, a relative increase over Q3, when this percentage stood at 13.3%. Domestic demand, however, remained at an unusually low level for Serbia in Q4 notwithstanding the increase. The difference between spending and production usually exceeded 20% in the pre-crisis years. From 2002 until the onset of the crisis, the difference between spending and production was lower than in Q4 2009 only in Q1 2005 – when it was triggered by the introduction of VAT. This is why QM is of the opinion that the positive effects of the moderate increase in domestic demand on the

economy outweigh the risks the increase poses to the country's macroeconomic stability. Caution should, however, be exercised when drawing conclusions about the relations between domestic demand and production given that these relations had been the gravest structural problem of Serbia's economy before the crisis.

The lower demand to GDP ratio in 2009 can be ascribed to the combined effects of a number of factors. On the one hand, the slowdown in corporate and household borrowing and the wage bill reduction led to a plunge in domestic demand. On the other hand, the fiscal policy partly cushioned the fall through the moderate growth of expansiveness (automatic stabilizer, but with adjustments). Overall, there was a steep decline in domestic demand vis-à-vis production (Graph T2-3). The balancing of the two macroeconomic aggregates resulted in a major reduction of the current balance of payments deficit and inflation slowdown.⁶

Unit labor costs plunging

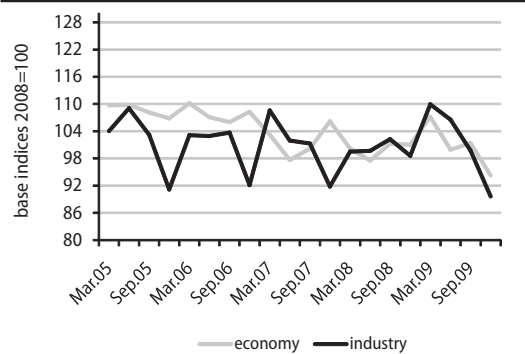
Unit labor costs⁷ (ULC) measured in dinars plunged in Q4 (Graph T2-4). ULC fall when the share of labor costs in value added falls. There was a visible reduction of the wage bill in Q4 – primarily due to the decline in employment – while economic activity was mildly recovering. Both trends simultaneously led to the drop in ULC; hence the unusually great difference between the ULC in Q4 and Q3. This can be attributed to the fact that employment as a rule reacts to changes in production with delay; the labor market was still adjusting to the drop in production caused by the crisis while the economy embarked on the road to recovery.

**Output is recovering...
...but employment is still falling**

The visible reduction in Q4 brought the share of labor costs in the value added fully back on the pre-crisis track. A large drop in employment in 2009 was the price paid for this adjustment.⁸ The value of ULC in Q4, therefore, indicates that the labor market has for the most part adjusted to lesser economic activity and that sizable lay-offs should not be expected in 2010.

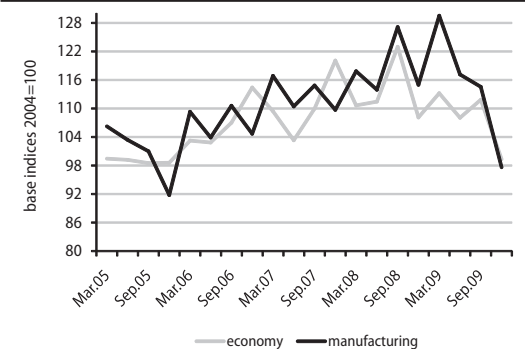
Competitiveness improves considerably

Graph T2-4. Serbia: Real Unit Labor Costs in the Economy and Industry, 2005-2009



Source: QM based on NBS and SORS data.

Graph T2-5. Serbia: Real Euro-Unit Labor Costs in the Economy and the Manufacturing Industry, 2005-2009



Source: QM based on NBS and SORS data.

Unit labor costs measured in euros (euro-ULC) indicate the international competitiveness of a national economy because they define the highest cost component (labor costs) vis-à-vis value added. The QM calculated the euro-ULC in the manufacturing industry, which produces by far the greatest number of tradable products, and in the overall economy.⁹

Graph T2-5 presents the movement of the euro-ULC in the economy and the manufacturing industry and its plunge in Q4. Not only has the value of ULC returned to the pre-crisis level; it actually fell to the 2004 average level. Although some time will have to pass and the euro-ULC will have to finally stabilize before these trends are definitely corroborated, the visible fall of the euro-ULC in Q4 may be indication that the national economy is exiting the crisis as a much more competitive one. This rise in competitiveness is attributed the most to the real depreciation of the dinar and to a somewhat surprising flexibility of the labor market, which ultimately strongly adjusted to lesser production albeit after a visible delay. The plunge of the euro-ULC may prove to be a significant incentive to increase exports. Despite minor oscillations, the euro-ULC had been constantly rising before the crisis, thus reducing the competitiveness of Serbia's economy (Graph T2-5).

6 See more in Section 5, Prices and the Exchange Rate and Section 4, Balance of Payments and Foreign Trade, in this issue of QM.

7 Unit labor costs in dinars are calculated for the economy (excluding the agriculture and state sectors) and industry.

8 See Section 3, Employment and Wages, in this issue of QM.

9 Excluding the state and agriculture sectors.

Industrial Production

Decline of industrial production wanes visibly

Industrial production recorded a 3.8% decline in Q4 over Q4 2008 (Table T2-6). Notwithstanding the y-o-y decline, industrial production was considerably higher in Q4 over Q3, when its y-o-y decline stood at 10.6%, and continued recovering after the steep plunge in the first half of the year.

Table T2-6. Serbia: Industrial Production Indices, 2005-2009

	2005	2006	2007	2008	2009	Y-o-y indices								Share 2008
						2008				2009				
						Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Total	100.8	104.7	103.7	101.1	87.9	106.0	102.3	101.3	94.9	83.0	82.2	89.4	96.2	100.0
Mining and quarrying	102.1	104.1	99.4	103.6	95.7	106.0	101.8	103.0	102.8	92.8	90.1	100.1	99.2	6.2
Manufacturing	99.3	105.3	104.2	100.7	84.2	104.4	103.7	100.7	94.1	77.4	78.4	85.3	94.6	75.5
Electricity, gas, and water supply	106.6	102.2	102.8	101.8	100.6	112.0	96.1	103.2	96.0	99.2	98.7	103.9	100.7	18.3

Source: SORS.

Manufacturing industry contributing to recovery the most

Given its high share, the manufacturing industry affected overall industrial production the most. The y-o-y decline of industrial output in the manufacturing industry stood at 5.4% in Q4 (Table T2-6). The production and distribution of electricity, gas and water in Q4 rose by 0.7% y-o-y, while mining and quarrying fell by 0.8% in the same period.

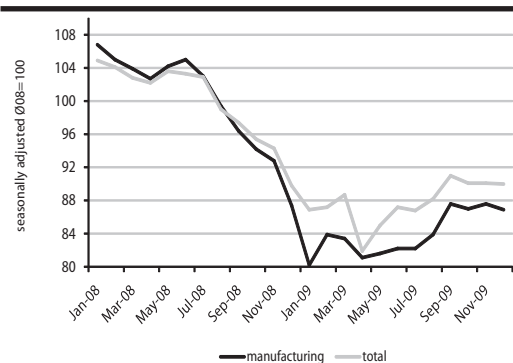
Industrial production fell by 12.1% in 2009 year-on-year. The manufacturing industry fell by 15.8% over 2008. The production and distribution of electricity, gas and water was at a level similar to the one in 2008, while mining and quarrying suffered a minor annual decline of 3.3% in production y-o-y.

Seasonally adjusted indices stagnate at September level

Graph T2-7 presents the seasonally adjusted industrial production indices for the industry as a whole and the manufacturing industry. The seasonally adjusted data indicate that the level of production grew in Q4 over Q3 and, also, that industrial production stabilized at the level achieved back in September 2009. Although the average level of industrial production was noticeably higher in Q4 than in Q3, the monthly seasonally adjusted data may be an indicator of stagnation after the initial stage of somewhat faster recovery. However, given that the exogenously defined production in *US Steel Serbia* also considerably affected the last two quarters of 2009, *QM* will for now refrain from commenting the monthly dynamics of industrial recovery but will reiterate the assessment that industrial production was on an upward trajectory compared with the first half of the year.

A review of seasonally adjusted indices in the past two years shows: (1) a sudden decline in industrial production as of mid-2008, (2) very low and unstable production levels in early 2009,

Graph T2-7. Serbia: Seasonally Adjusted Industrial Production Indices, 2008-2009



Source: QM based on SORS data.

(3) strong recovery of industrial production in Q3, and (4) stagnation - in Q4 - at the level of recovery achieved in September.

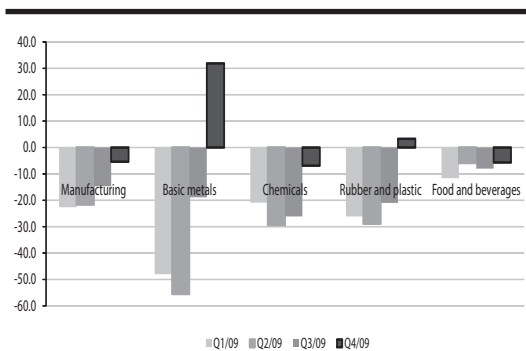
Graph T2-8 shows y-o-y growth of specific sectors with sizable shares in the manufacturing industry. Basic metals production underwent the greatest change over Q3. The other two export-oriented sectors (the chemical industry and rubber and plastic production) also recorded better results in Q4, partly due to comparison with the lower base in 2008, while the food industry stagnated at a level between five and ten percent lower than the 2008 level.

Basic metal production contributing to production recovery the most...

Basic metals production grew by 31.9% y-o-y in Q4 although it recorded a y-o-y fall of 41.4% in the first three quarters. The reason for such turbulent dynamics lies in the temporary restart of full production in the *US Steel Serbia* blast furnaces in July 2009. Namely, production was suspended in the US Steel facilities in Košice (Slovakia) due to technical problems and redirected to Smederevo until the Košice facilities resume work. If basic metals production were excluded from the manufacturing industry, its growth both in Q3 and Q4 would be much smaller.

...while results of other sectors improve only negligibly

Graph T2-8. Serbia: Year-on-Year Growth of Specific Manufacturing Industry Sectors, 2008-2009



Source: SORS.

The food industry, which boasts the highest share in industrial production, recorded a 5.7% drop y-o-y in Q4 (Graph T2-8), slightly less than in Q3 (8%). The lower y-o-y decline of the food industry in Q4 is nevertheless solely the consequence of its comparison with the lower base in 2008, given that seasonally adjusted indices stagnated in the quarter. As opposed to the food industry, the Q4 movements of other manufacturing industry sectors, the chemical industry and the rubber and plastic industry (Graph T2-8), show mild positive trends compared with Q3 even when the effect of comparison with the lower bases is excluded.

Production of intermediate goods is the only one recording recovery in Q4

Table T2-9 shows that the production of intermediate goods and energy grew y-o-y in Q4, while the production of investment and consumer goods declined over Q4 2008. The production of intermediate goods grew by 3.4% over Q4 2008, primarily due to the high growth of basic metals production, while energy production recorded a modest 0.5% increase over the same period last year. On the other hand, the production of investment goods fell by 12.4% and the production of consumer goods dropped by 12.5% over Q4 2008.

Only the production of intermediate goods saw growth over Q3, even when basic metals production is excluded from the grouping, The production of all other groupings practically stagnated at the Q3 level, although they declined much less y-o-y than in Q3.¹⁰

Table T2-9. Serbia: Components of Industrial Production, 2005-2009

	Y-o-y indices												Share ⁵⁾ 2008
	2005	2006	2007	2008	2008				2009				
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Total	100.6	104.7	103.7	101.1	106.0	102.3	101.3	94.9	83.0	82.2	89.3	96.2	100.0
Energy ¹⁾	103.9	102.5	101.2	101.5	110.2	98.2	102.4	96.4	98.3	96.5	102.0	100.5	26.6
Investment goods ²⁾	74.2	90.0	105.4	105.5	106.5	118.3	105.0	92.1	71.4	77.6	76.0	87.6	6.0
Intermediate goods ³⁾	104.9	106.7	104.9	100.0	106.0	106.8	99.7	87.2	65.1	66.0	81.1	103.2	30.4
Intermediate goods without basic metals	101.5	101.3	107.3	98.8	105.1	107.1	95.3	89.1	69.6	73.4	81.1	93.3	22.6
Consumer goods ⁴⁾	101.6	112.0	107.1	97.9	99.4	97.5	100.0	101.8	85.1	83.4	88.5	87.5	37.0
Consumer goods without food industry	96.3	128.3	109.2	96.3	95.8	96.5	103.4	108.5	80.1	66.5	82.9	76.5	14.2

Source: SORS.

1) Extraction of coal, crude oil, natural gas, electricity and water supply.

2) Manufacture of metal products excluding machines (sections 281, 282 and 283, Classification of Activities), machines and equipment (excluding electric), office machinery and computers, radio, TV and communication equipment, precision and optical instruments, motor vehicles and trailers, other transport equipment.

3) Mining of metal and non-metal ores, stone quarrying. Manufacture of textile yarns and fabric, wood and pulp products (except furniture), cellulose, paper and paper products, rubber and plastic products, chemical products (except pharmaceuticals and household chemicals), petrochemicals, construction materials, basic metals, sub-sector of metal goods production excluding machines (sections 284, 285, 286 and 287, Classification of Activities), electrical machines and appliances, and the recycling sub-sector.

4) Food products, tobacco products, clothing, leather products and footwear, publishing and printing products, pharmaceutical products and household chemicals, furniture and other various products.

5) Share in total industrial production

¹⁰ In this case as well, the lower y-o-y decline is attributed to comparison with the lower base in 2008, when industrial production was already perceptibly lower due to the crisis.

Construction

Decline in construction activity exceeds 20%

Construction activity was between 20 and 25 percent lower in Q4 than in the same period last year. *QM* is of the view that the cement production index¹¹ is the most reliable of the numerous indicators of movements in construction (Table T2-10). Cement production was 25.6% lower in Q4 2009 than in the same period the previous year.

Of the other construction indicators published by SORS, *QM* would like to highlight the value of completed construction in Q2 – which indicates an even greater fall in construction activity than the one estimated by observing only cement production. The value of completed construction was 29.3% lower in real terms in Q4 compared with the same quarter in 2008.

Table T2-10. Serbia: Cement Production, 2001-2009

	Y-o-y indices				
	I quarter	II quarter	III quarter	IV quarter	total
2001	89.5	103.5	126.9	148.1	114.2
2002	83.6	107.9	115.6	81.6	99.1
2003	51.1	94.4	92.7	94.4	86.6
2004	118.8	107.4	98.5	120.1	108.0
2005	66.1	105.0	105.8	107.4	101.6
2006	136.0	102.7	112.2	120.2	112.7
2007	193.8	108.9	93.1	85.0	104.4
2008	100.1	103.7	108.1	110.1	105.9
2009	34.1	81.4	86.0	75.3	74.4

Source: SORS.

Forecasts are unfavorable for now

Construction was the sector hit the hardest by the economic crisis. The y-o-y decline in construction activity stood at around 16.3% in 2009 (Table T2-1).

Forecasts of construction activity in 2010 are unfavorable for now. The value of contracted construction work was 27.8% lower in Q4 2009 than in Q4 2008. The announced acceleration of work on major infrastructural projects, such as the construction of Corridor X and the state's potential engagement in boosting residential construction, may help construction recover in 2010.

¹¹ Cement consumption would be the proper indicator but data on cement consumption are not available at a quarterly level. Research has shown that cement production approximates cement consumption relatively reliably.

3. Employment and Wages

The latest statistical data paint a very bleak general picture of the labour market in Serbia at the end of 2009, as the total number of employed workers drops to a historical minimum of the past several decades, the employment rate falls by 3.3 percentage points, i.e. almost 200,000 persons since the start of the global economic crisis, and one in two working age persons remain employed. Since the outbreak of the economic crisis, the unemployment rate has grown to 17.4%, and a large number of persons who stopped working moved to the category of inactive persons. Even though female employment rate is by more than 15 percentage points lower than male employment rate, women dominate the public sector, so they have had more security of employment since the start of the crisis. Around 20% of all employed workers are in the informal sector, and it is surprising that informal employment has also been falling during the crisis, thus behaving pro-cyclically. More than one quarter of those in formal employment, excluding agriculture, work in the public sector, while employment rates in industry have constantly fallen, to gradually start matching the number of workers in agriculture. Even though the private, corporate sector should be the backbone of economic growth and the main source of new jobs during transition, wage employment outside the public sector has continued to fall. Employment in the public sector has remained stable, while planned administration downsizing will have a minimal total impact on employment decline of 1.7%. Real wages in Q4 2009 remained roughly the same as in Q4 of the previous year. Year-on-year, real gross wages rose by 1% in 2009. Even though public sector wages continue to decline in real terms due to a wage freeze, this measure was not consistently implemented in December 2009.

Employment

Table T3-1. Serbia: Employment and Unemployment According to the Labour Force Survey¹⁾, 2008-2009

		Total number of employed 15-64 ²⁾	Number of employed in agriculture and unpaid family workers 15-64 ³⁾	Employment rate 15-64			Total number of unemployed 15-64	Unemployment rate 15-64		
				Total	Male	Female		Total	Male	Female
		1	2	3	4	5	6	7	8	9
2008	April	2,652,429	670,141	54.0	62.3	46.0	432,730	14.0	12.4	16.1
	October	2,646,215	589,240	53.3	62.2	44.7	457,204	14.7	12.7	17.3
2009	April	2,486,734	437,957	50.8	58.7	43.3	486,858	16.4	15.0	18.1
	October	2,450,643	411,303	50.0	57.4	42.7	516,990	17.4	16.1	19.1

Source: Labour Force Survey, Statistical Office of the Republic of Serbia.

Notes:

The Labour Force Survey, launched in 2008, is conducted twice a year, in October and in April.

Persons of 15-64 years of age are considered to be working population.

Until October 2009, the Labour Force Survey had no classification of 15-64 for the number of employed in agriculture and for contributing household members, but only the category of 15+.

Employment rate has fallen by 3.3% since the start of the economic crisis. The number of employed workers has fallen to record low levels in several decades

According to the latest Labour Force Survey from October 2009, the number of persons employed in Serbia stood at 2,450,000 persons of the working age group, while the employment rate stood at 50%. The employment rate fell by 0.8 percentage points or 36,000 persons between April and October 2009, which indicates a slowdown in the negative trend of employment declines against the period between October 2008 and April 2009¹⁾, when employment fell by around 2.5 percentage points or 160,000 persons (Table T3-1). However, the facts that the total number of employed workers has dropped to its lowest level in the past several decades, that the employment rate has fallen by 3.3 percentage points since the outbreak of the global economic crisis or almost 200,000 persons, that employment elasticity is still significantly above 1²⁾, and that one in two persons of the working age are employed, offer a very bleak overall picture. Namely, in order for Serbia

1 Labour Force Survey is conducted twice a year – in April and in October.

2 Employment continues to decline faster than GDP.

3. Employment and Wages

to reach the average employment rate in the EU³, ceteris paribus, another 800,000 persons would need to obtain employment, which is almost an impossible target to reach over the next decade.

Unemployment rate rose to 17.4% between October 2008 and October 2009, while a large number of persons, who stopped working, move to the category of inactive persons

During the period of October 2008 and October 2009, the number of unemployed workers rose by 60,000 persons and the corresponding unemployment rate rose to 17.4%. A large number of persons who stopped working moved to inactivity, which is the reason why the growth in unemployment has not grown as much as the decline in employment. Namely, around 60,000 persons who had stopped working between October 2008 and October 2009 became inactive, rather than unemployed.

Even though female employment rate is by more than 15 percentage points lower than male employment rate, proportionately more women work in the public sector, therefore facing less job losses since the start of the economic crisis

Gender disaggregation of key labour market indicators indicate significant differences between female and male employment and unemployment rates in favour of men. However, even though female employment rate is significantly lower than male employment rate (the difference of more than 15 percentage points), it has fallen less since the start of the crisis than male employment (Table T3-1), which shows that female employment is safer, i.e. more crisis-resistant than male employment (Table T3-1). Those developments can be explained by the fact that the share of highly skilled women in total female employment is higher than it is the share of highly skilled men in total male employment, i.e. that a lot larger number of men with lower qualifications is employed than is the case with low skilled women. Beside that, the number of women in the public sector is proportionately higher, particularly in the education and health sectors, where job safety is far higher than in other segments of the economy. Thus, the discrepancy in employment and unemployment rates among men and women has slightly narrowed since the start of the crisis, considering that a larger number of men lost job in the observed period. Finally, those developments also signal that it is necessary to more intensively work on greater inclusion of low skilled women into the labour market, which will significantly contribute to the increase in total employment rates.

Around 20% of all employed workers are in the informal sector, but it is surprising that informal employment has declined, behaving pro-cyclically

Beside a low total number of employed workers, Serbia also has bad structure and quality of employment. Around 20% of all employed workers are in the informal sector, and it is interesting that informal employment, during the time of crisis, has behaved pro-cyclically, also falling – from 18.5% in April to 18.2% in October 2009 (the decline corresponds to 14,000 persons). Normally, informal employment increases in times of crisis, as it represents an important coping mechanism for those persons who lose formal employment. Highlight 2 “Informal Economy and Informal Employment in Serbia” in this issue of *QM* addresses this problem in greater detail.

Table T3-2. Serbia: The Number of Registered Employed and Unemployed Persons, 2004-2009

		Total no. of employed	Employees in legal entities ²⁾	Entrepreneurs			Total no. of employees	Number of unemployed (NES)
				Total	No. of entrepreneurs	No. of employees with entrepreneurs		
				1 (=2+3)	2	3 (=4+5)			4	5	6 (=2+5)	7
in thousands								
2004	March	2,065	1,601	464	208	255	1,856	...
	September	2,037	1,560	477	210	267	1,827	843
2005	March	2,070	1,557	513	228	285	1,842	884
	September	2,067	1,536	531	230	300	1,836	898
2006	March	2,032	1,496	536	228	308	1,804	920
	September	2,019	1,447	572	242	330	1,777	915
2007	March	2,004	1,438	566	239	327	1,765	913
	September	2,001	1,428	573	245	328	1,756	808
2008	March	2,006	1,432	574	245	329	1,761	795
	September	1,998	1,424	574	245	329	1,753	726
2009	March	1,911	1,411	500	210	290	1,701	758
	September	1,868	1,383	485	211	274	1,657	737

Source: Statistical Office of the Republic of Serbia – The semi-annual report on employed persons and wages of the employed persons RAD-1/P; the update to the semi-annual survey RAD-1; Semi-annual survey on private entrepreneurs and their employed workers RAD-15; the National Employment Service.

Notes:

Talking about the registered number of employed, one refers to the formal economy, i.e. the employed persons with regular and legal employment contracts and whose wages pay taxes and contributions.

Talking about the registered number of unemployed, one refers to the persons who have registered with the National Employment Service. The National Employment Services shifted in September 2004 from following the number of job-seekers to the number of unemployed persons, because of which we have no series for the period before September 2007 (column 7).

³ In the European Union two out of three persons in the working age are employed, while in old member states (EU-15), Japan and USA this ratio is even higher

More than one quarter of those with formal employment, excluding agriculture, work in the public sector, while employment in industry constantly declines

Although the private corporate sector should be the main source of employment during transition, the fall in wage employment outside the public sector has continued

The number of entrepreneurs and their workers remains the same as in 2004

Negative developments in the labour market, shown in the Labour Force Survey, are confirmed by administrative data (RAD Survey). Formal non-agriculture employment numbers around 1,820,000 persons (Table P-5 in Analytical Appendix), of which more than one quarter, or 473,000 persons, work in the public sector (Table T3-3, column 6). At the same time, employment in industry has constantly fallen – in the manufacturing industry alone the number has fallen by more than 100,000 over the past three years to gradually match the number of those employed in agriculture (around 540,000 persons above 15 years of age).

Between September 2008 and September 2009, the total number of workers employed with legal entities fell by around 42,000 (Table T3-2, column 2). In the whole private corporate sector – i.e. the enterprise sector, including not fully privatised enterprises and excluding those self-employed and entrepreneurial shops – there is a total of 923,000 workers (Table T3-3, column 7). Even though this sector is supposed to be the backbone of economic growth and the main source of employment growth during the transition period, data show that the fall in wage employment outside the public sector has continued. Therefore, over the past year, we see the decline of 33,000 persons (10% within the sector) in the manufacturing industry, followed by wholesale and retail trade – around 7,000 persons (3.6% within the sector); construction industry – around 5,000 persons (6.5% within the sector) and hotels and restaurants and transportation by around 2,000 respectively (10.1% and 1.8% respectively) (Table P-5 in Analytical Appendix).

Figures on the number of entrepreneurs and their workers for September 2009 show that the number of entrepreneurs remained almost unchanged on March 2009, while the number of their workers fell by 16,000 persons, or around 5% (Table T-2, columns 3, 4 and 5). Considering the updates of the registry and the change in the Serbian Health Insurance Fund (RZZO) regulations in late 2008, which is the source of data on the number of entrepreneurs for the Statistical Office of the Republic of Serbia, we are not able to assess the total decline of the number of entrepreneurs since the start of the global economic crisis. The available figures from March 2009 indicate, at a first glance, that the entrepreneurial sector has not been hit by the economic crisis as hard as the corporate sector. However, taking into consideration that the number of entrepreneurs and their workers is roughly the same as in 2004, we can conclude that economic incentives that would have led to an expected expansion of the entrepreneurship in Serbia were insufficient, and that the stagnating number of entrepreneurs is an indicator that the entrepreneurial sector in Serbia is in a bad shape. Finally, it is certain that subsidised loans to entrepreneurs, as one of the anti-crisis measures taken in 2009, has slowed down the decline in the number of entrepreneurs and their workers.

Table T3-3. Serbia: Public Sector Employment, 2004-2009

		Employees in legal entities						
		Public sector					Public sector - total	Other ¹⁾
		From the budget		Public enterprises				
		Administration - all levels	Education and culture	Health and social work	National public	Local public		
		1	2	3	4	5	6	7
		in thousands						
2004	March	63	117	147	125	57	509	1,092
	September	63	116	148	124	57	508	1,052
2005	March	63	119	148	122	61	513	1,044
	September	61	117	147	112	61	498	1,038
2006	March	60	118	141	105	61	485	1,011
	September	58	117	138	102	60	475	972
2007	March	58	121	138	100	59	476	962
	September	59	120	139	100	58	476	952
2008	March	60	124	140	99	58	481	951
	September	61	122	141	100	58	482	943
2009	March	64	125	142	89	57	478	935
	September	64	123	142	88	57	473	923

Source: RZS (Statistical Office of the Republic of Serbia)

Note: Employees at the Defence Ministry and employees at the Interior Ministry, even though financed from the budget, are not included in the total number of employed workers shown in the table. Their total number is estimated at around 80,000 and they contribute with another 4% to overall employment in Serbia. For security reasons, the Statistical Office of the Republic of Serbia reports neither the exact number of employees at those institutions nor their average wages.

Footnotes:

Private, socially-owned and joint-stock companies (excluding entrepreneurs). The number is calculated when the number of employees at legal entities from Table T3-2 is deducted from the number of employed persons at public companies and those financed from the budget.

3. Employment and Wages

The impact of planned downsizing in public administration will lead to a minimal 1.7% reduction in employment rates in the public sector

Employment in the public sector in the observed period remains stable. Even though public sector employment remained unchanged since the start of the global economic crisis, the planned downsizing of public administration will be visible only in March 2010 data. Finally, we emphasize that administration accounts for only 13.5% of all public sector workers and that planned job cuts will have a minimal effect on public sector job cuts, of around 1,7%, which signals a further need to adjust the rest of the public sector, i.e. education and health sectors and public enterprises to a narrowed fiscal space.

Wages

Table T3-4. Serbia: Average Monthly Wages and Year-on-year Indexes, 2008-2009

	Average Monthly Wage ¹⁾				Average Gross Monthly Wage Index ²⁾	
	Total labour costs ³⁾ , in dinars	Net wage, in dinars	Total labour costs, in euros	Net wage, in euros	nominal	real
	1	2	3	4	5	6
2008	47,882	29,174	586	357	117.8	105.5
2009	52,090	31,758	554	337	108.8	101.0
2008						
Q1	43,957	26,814	532	324	119.3	105.2
Q2	47,351	28,846	584	356	119.4	103.1
Q3	48,322	29,435	627	382	117.9	105.0
Q4	51,898	31,599	602	366	115.1	104.1
Dec	56,399	34,348	637	388	112.0	103.1
2009						
Q1	49,444	30,120	525	320	112.5	102.6
Q2	52,164	31,808	552	337	110.2	102.0
Q3	52,065	31,737	558	340	107.7	100.1
Q4	54,689	33,366	579	353	105.4	99.9
Dec	60,265	36,789	628	383	106.9	100.8

Source: Statistical Office of the Republic of Serbia.

Notes:

Figures for 2008 are adjusted based on a widened sample to calculate average wages, which also includes wages of the persons employed by entrepreneurs. Year-on-year indexes of average monthly gross wages for 2008 were calculated from 2007 and 2008 wages, based on the old sample, which excludes the persons employed by entrepreneurs. However, those indexes are comparable with 2009 indexes, considering that despite the widening of the sample, the pace of wage growth has been kept, with their nominal values reduced by around 12%.

The total labour costs represent the full burden for an employer per worker, including all taxes and contributions, which amount to 164.5% of the net wage. Indexes of gross wage growth and of total labour cost growth are equal because the total labour costs are higher than the gross wage by a fixed 17.9%.

In the course of Q4, real wages have stayed roughly the same as in Q4 of the previous year

Real wages in Q4 2009 stayed roughly the same as in Q4 of the previous year (falling by 0.1 percentage point). Nominal wage growth has constantly slowed down, so that their nominal year-on-year growth stood at 5.4% in Q4 against 7.7% in Q3 (Table T3-4). Wage growth in December was above average growth rates for Q4, which was expected due to various additional end-of-year payments.

The total year-on-year real growth in gross wages stood at 1.1% in 2009. Nominal wage growth equally posted a significant slowdown in 2009

Year-on-year, the total real growth in gross wages stood at 1.1% in the course of 2009, significantly below 2008 wage growth of 4.4%. Nominal wage growth, too, slowed down significantly in 2009, to 8.8%, which is 9 percentage points less than the 2008 growth (Table T3-4).

Even though public sector wages continue to decline in real terms due to a wage freeze, this measure was not consistently implemented in December

The average wage growth in Serbia in 2009 can be attributed mainly to the real wage growth in the private sector of 4% year-on-year, because the average value rises proportionately as the number of workers earning lower wages declines (Table T3-5, column 6). At the same time, the decline in real wages in the public sector was more drastic than in Q3 as a result of a wage freeze introduced in Q4 2008 (Table T3-5). Data on wages in December 2009 (Table P-7 in Analytical Appendix) show that the public sector wage freeze was not consistently implemented. This is particularly obvious in the health and social security sectors, where the average wage in December rose to 67,677 dinars against 51,407 dinars in November, followed by the administration sector where the average wage in December rose to 65,850 dinars from 56,966 dinars in November.

Table T3-5. Serbia: Gross Wages in the Public Sector, 2004-2009, Year-on-year Indexes in Real Terms

	From the budget			Public enterprises		Other ¹⁾	Serbia average
	Administration - all levels	Education and culture	Health and social work	National public	Local public		
	1	2	3	4	5			6	7
2004	107.4	107.7	110.9	107.9	113.4	113.7	111.4
2005	105.9	106.0	100.8	100.5	103.0	106.9	107.1
2006	109.1	107.2	109.4	110.8	102.9	113.7	111.3
2007	111.1	114.7	123.8	116.7	105.0	114.1	114.6
2008	100.7	105.7	101.3	101.2	95.9	105.7	105.5
2009	95.5	96.7	97.4	98.3	98.2	104.1	101.1
2007							
Q1	111.5	112.6	125.4	129.8	113.8	117.3	118.5
Q2	118.6	119.2	131.5	118.9	104.5	117.4	118.6
Q3	114.1	116.7	127.5	112.5	104.1	112.5	114.1
Q4	100.1	110.3	111.0	105.8	97.4	109.0	108.2
2008							
Q1	99.2	109.5	105.6	94.3	98.5	107.3	105.2
Q2	99.6	104.8	99.4	103.0	89.0	104.2	103.1
Q3	100.8	104.7	101.1	103.6	91.7	106.3	105.0
Q4	103.3	103.7	99.2	103.9	104.4	105.1	104.1
2009							
Q1	100.1	98.3	99.7	98.8	101.1	105.1	102.5
Q2	94.6	98.0	98.8	99.7	99.9	104.8	102.0
Q3	93.8	96.4	97.1	98.3	95.7	102.9	100.1
Q4	93.4	94.0	93.9	96.4	96.2	104.0	99.9

Source: Statistical Office of the Republic of Serbia.

Notes:

1) Column 6 includes private, socially-owned and joint-stock companies (excluding entrepreneurs).

2) Column 6 shows an assessed size calculated by deducting the wage bill in the public sector from the total wage bill. The difference is divided by the number of workers employed in the real sector (column 7, Table T3-3).

3) Year-on-year indexes in real terms in columns 6 and 7 for 2008 and 2009 have been calculated based on a broadened sample for average wage calculation, which includes persons employed by entrepreneurs.

4. Balance of Payments and Foreign Trade

The current account balance amounted to a negative 5.6% of GDP in Q4 2009 (€472 mn), a greater share in GDP than that seen in Q2 or Q3. The last quarter of 2009 recorded a goods deficit of 15.6% of GDP (€1,312 mn), exceeding values of the two preceding quarters. Both deficit levels were very low (5.5% and 15.1% of GDP respectively) owing to recession in 2009, but, in view of the gradual increase in the deficit, as well as the likely exit of the economy from recession, we can expect to see these figures rise again in 2010. High current transfer levels, amounting to €3.5 bn, were recorded in 2009 (of which remittances accounted for €2.6 bn), as were substantial inflows of IMF funds (€1.54 bn). In addition, 2009 saw imports fall further than exports, which resulted in a drop in the foreign trade deficit and an increase in the ratio of exports to imports. Seasonally adjusted values indicate a slight recovery of exports in relation to the preceding three quarters, but levels were still lower than in Q4 2008. Seasonally-adjusted imports excluding energy saw a major fall immediately after the crisis began; the slide continued up to mid-2009, since when imports have remained essentially unchanged. Imports and exports are likely to recover along with the rest of the economy during 2010.

Q4 2009 current account deficit amounted to €472 mn, or 5.6% of GDP...

The current account deficit amounted to €472 mn, or 5.6% of estimated quarterly GDP, in Q4 2009. This figure exceeded figures recorded in Q2 and Q3 2009, of 2.2% and 3.4% respectively. Although these changes indicate that the deficit has been on the increase since mid-2009, its share in GDP is still well below values that were the hallmark of the pre-crisis period. In addition, last quarter's share of the deficit in GDP was lower by 5.8 percentage points in relation to Q1 2009 (a drop of 11.4% of GDP to 5.6% of GDP in Q4). The current account deficit, which has seen a sharp drop during the downturn, is likely to grow once Serbia is out of recession. Therefore, the growth of the deficit seen in the second half of 2009 probably indicates a mild recovery of the economy¹ which will, in line with forecasts,² again bring into focus the issue of how the deficit is to be financed.³

...exceeding Q2 and Q3 levels

The goods deficit was also on the increase

Values of the goods deficit and the goods and services account deficit seen in Q4 2009 were still substantially lower than those recorded one year previously, but have also increased in relation to the preceding two quarters. The goods deficit stood at €1,312 mn in Q4 (Table T4-1) and amounted to 15.6% of quarterly GDP. The share of the goods deficit in GDP was lower only when compared to Q1, and exceeded figures recorded in Q2 and Q3. Based on these data it can be concluded that movements in the goods deficit were somewhat different from movements in the current account: following Q1, when the goods deficit amounted to 18.2% of GDP, Q2 saw its share drop to 13.6% of GDP, only for Q3 to see an even lower value, 13.4% of GDP. The goods deficit increased only in Q4 (from 13.4% in Q3 to 15.6% of GDP). When considered by component, exports slumped in Q3 in relation to Q2 after rising in Q2 in relation to Q1, only to remain nearly unchanged in Q4 (rising from 19.0% of GDP in Q3 to 19.1% of GDP, Table T4-1). The share of imports in GDP fell two quarters in a row – Q2 in relation to Q1 and Q3 in relation to Q2, rising in the last trimester of 2009. The growth of imports in the last quarter of 2009 in relation to the preceding quarter amounted to 2.3 percentage points of GDP (from 32.3% of GDP in Q3 to 34.7% of GDP in Q4), which can be explained by seasonal factors.⁴ The fourth quarter saw exports of goods worth €1,602 mn (19.1% of GDP), while imports amounted to €2,913 mn (34.7% of GDP).⁵ Services recorded a slight surplus, which made the goods and services account deficit lower by a mere 0.5 percentage points of GDP than the goods deficit.

1 See Section 2, "Economic Activity", in this issue of QM.

2 See "Balance of Payments and Foreign Trade" sections in previous issues of QM.

3 The increase in the share of the deficit in GDP will probably be less marked, as both the numerator and the denominator (GDP) are expected to rise. The NBS estimates that current account deficit will stand at 8% of GDP in 2010.

4 The increase in Q4 can be explained primarily by seasonal factors, since seasonally-adjusted import figures indicate a stagnation in the second half of 2009.

5 Corrected NBS data on imports and exports (f.o.b.) calculated in accordance with IMF methodology were used in the analysis of the balance of payments (Balance of Payments Manual, Fifth Edition, IMF: <http://www.imf.org/external/np/sta/bop/BOPman.pdf>), whereas SORS data were used for the analysis of imports and exports. The SORS data differs methodologically from NBS data; hence the discrepancies in the imports and exports figures and growth rates.

The current transfer account continued seeing high inflows, mainly caused by remittances

Net current transfers remained very high in Q4, amounting to €954 mn (11.4% of GDP). When compared to net inflows recorded in Q4 2008, this year's transfer inflows were higher by a third. As with the preceding quarters, high net current transfer inflows seen in Q4 were mainly caused by substantial remittance sums, of €660 mn. The fourth quarter also saw high inflows of other transfers, to the tune of €224.3 mn.

Table T4-1. Serbia: Balance of Payments

	2008	2009	2008				2009			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
in millions of euros										
CURRENT ACCOUNT	-6,089	-1,743	-1,279	-1,800	-1,485	-1,525	-818	-175	-278	-472
Goods	-7,549	-4,782	-1,806	-1,981	-1,899	-1,862	-1,305	-1,073	-1,092	-1,312
Export f.o.b. ¹⁾	7,416	5,978	1,672	1,972	2,054	1,717	1,291	1,536	1,550	1,602
Import f.o.b	-14,964	-10,760	-3,479	-3,953	-3,953	-3,579	-2,596	-2,609	-2,642	-2,913
Services	-173	23	36	-73	-109	-26	-37	21	-2	40
Export	2,741	2,500	688	638	727	689	568	599	669	664
Import	-2,914	-2,477	-652	-711	-836	-715	-605	-577	-671	-624
Income, net	-922	-502	-138	-306	-127	-351	-123	-95	-129	-155
Receipts	558	500	145	137	155	121	117	149	112	122
Payments	-1,480	-1,002	-282	-444	-282	-472	-240	-245	-241	-277
Current transfers, net	2,554	3,518	629	561	651	714	648	971	945	954
o/w grants	163	197	34	50	36	43	39	37	40	82
o/w private remittances, net	1,692	2,618	434	327	441	489	456	769	732	660
CAPITAL ACCOUNT	13	2	5	8	0	0	-1	-1	1	3
FINANCIAL ACCOUNT	6,180	1,860	1,385	1,769	1,444	1,582	816	204	302	537
Direct investment, net	1,824	1,372	831	656	127	211	643	251	113	366
Portfolio investment, net	-91	-55	-48	-38	27	-32	-4	-58	6	0
Other investments	2,760	2,906	635	842	1,569	-287	-63	892	900	1,177
Trade credits	4	311	78	-82	-156	164	90	22	189	10
Loans	3,499	1,414	221	920	1,393	965	-721	679	623	832
NBS	0	1,114	0	0	0	0	0	783	0	332
Government	98	258	2	25	20	52	13	105	68	72
Commercial banks	125	894	-542	-43	317	393	-513	22	798	587
Long-term	-274	492	-162	-45	17	-84	19	50	279	144
Short-term	399	402	-379	1	300	477	-532	-28	519	443
Other (enterprises)	3,275	-853	760	939	1,056	520	-221	-230	-243	-159
Currency and deposits	-713	760	349	21	332	-1,415	569	190	-334	335
Other assets and liabilities	-30	0	-13	-17	0	0	0	0	0	0
Allocation of SDR	0	422	0	0	0	0	0	0	422	0
Reserves Assets (- increase)	1,687	-2,363	-32	309	-279	1,689	240	-880	-716	-1,007
ERRORS AND OMISSIONS, net	-104	-118	-111	23	41	-57	2	-27	-25	-67
OVERALL BALANCE	-1,687	2,363	32	-309	279	-1,689	-240	880	716	1,007
PRO MEMORIA										
in % of GDP										
Current account	-17.8	-5.5	-16.8	-20.7	-16.1	-17.5	-11.4	-2.2	-3.4	-5.6
Balance of goods	-22.0	-15.1	-23.7	-22.8	-20.6	-21.4	-18.2	-13.6	-13.4	-15.6
Exports of goods	21.6	18.9	21.9	22.7	22.2	19.7	18.0	19.4	19.0	19.1
Imports of goods	-43.7	-34.0	-45.6	-45.4	-42.8	-41.1	-36.2	-33.0	-32.3	-34.7
Balance of goods and services	-22.5	-15.0	-23.2	-23.6	-21.7	-21.7	-18.7	-13.3	-13.4	-15.1
Current transfers, net	7.4	11.1	8.3	6.4	7.0	8.2	9.0	12.3	11.6	11.4
GDP in euros ²⁾	34,281	31,637	7,621	8,705	9,241	8,715	7,164	7,900	8,168	8,405

Source: NBS.

1) Exports f.o.b. using NBS methodology adjusted to IMF BOPM-5.

2) Quarterly values. Annual GDP converted into euros using the average annual exchange rate (average of official NBS daily mid rates).

Q4 inflows were to a great extent made up of funds drawn from the IMF, borrowing by banks, and rising deposits

Capital inflows amounted to €1,546 mn,⁶ primarily made up of additional short-term borrowing by banks, rising foreign currency deposits of the general public, and funds drawn under the arrangement with the IMF. These inflows met and exceeded the current account deficit, resulting in an increase in foreign currency reserves of €1,007 mn.

The financial account surplus amounted to €537 mn in Q4 (Table T4-1). Net FDIs recorded in Q4 amounted to €366; net portfolio investments saw a level of zero. Inflows brought in by other investments were substantial in Q4, amounting to €1.2 bn. The fourth quarter again saw most other investments made up of financial loans – primarily short-term credits taken out by the banking sector, as well as the second tranche of the IMF loan granted to the government. In addition, the increase in other investment seen in the last trimester of 2009 was to a great extent the consequence of inflows in the Cash and deposits account. Net trade credits stood at a very low €10 mn. Over the three months under consideration net borrowing in financial loans amounted to €832 mn, of which funds granted by the IMF accounted for €332 mn, while additional borrowing by banks amounted to €587 mn (3/4 of which was made up by short-term loans, with

6 Or €1,479 mn when adjusted for the balance of errors and omissions.

4. Balance of Payments and Foreign Trade

only 1/4 accounted for by long-term credits). Businesses repaid liabilities to the tune of €159 mn net over the same period. Inflows of cash and deposits amounted to €335 mn in Q4; following a substantial increase in October and November (mostly due to a rise in foreign currency savings by households),⁷ December saw an outflow of funds from this account to the tune of €43.3 mn.

Foreign currency reserves were up in Q4

The increase in foreign currency reserves over Q4 amounted to one billion euros, and was caused primarily by net inflows under banks' reserve requirements and loans. October saw reserves grow by €230.5 mn, followed by another increase, of €280.1 mn, in November, while December saw growth of €496 mn,⁸ two NBS interventions in defence of the exchange rate notwithstanding.⁹ Foreign currency reserves recorded growth of €44.4 mn in January.¹⁰

The balance of payments in 2009 showed a drop in imports exceeding that of exports, as well as lower foreign trade and current account deficits...

The current account deficit was very low in 2009 as opposed to previous annual deficit levels, and, as already discussed in *QM*, has been recording very low values each quarter. This is evidently a consequence of a slump in demand and a deep recession faced by Serbia's economy over the course of last year. Thus the current account deficit recorded in 2009 amounted to €1,743.4 mn, which is three and a half times less than the figure seen in 2008. To put it another way, the deficit for the whole of 2009 was just slightly below quarterly levels recorded in 2008. The share of the current account deficit in GDP was lower by 12.3 percentage points in 2009 than it had been in 2008 – a drop from 17.8% of GDP to 5.5% of GDP. The fall in exports in 2009, accompanied by an even greater fall in imports, caused a substantial contraction in the value of the goods deficit, which, on the other hand, greatly contributed to the drop in the current account deficit.¹¹ The goods deficit amounted to 15.1% of GDP in 2009 (or €4,782 mn), substantially below the level seen in 2008, when it had stood at 22.0% of GDP. However, as the economy is expected to gradually come out of recession, these deficits are likely to see steady growth in 2010 but will still remain well below previous levels (characteristic of pre-crisis years). Future levels of the current account and goods deficits will also be additionally restricted by the more modest amounts available for their financing (as the global economy is expected to recover at a slow pace, limiting foreign investment into Serbia's economy and constraining access to loans on favourable terms).

...record levels of net current transfers, mainly remittances...

Inflows of net current transfers amounted to €3.5 bn in 2009. This figure was to a great extent caused not only by high amounts of remittances but by inflows of other transfers of the business sector (€764.9 mn) and government sector transfers of €135.8 mn net. Serbia saw extremely high inflows of remittances throughout 2009 (€2.6 bn). Although remittances had been seeing high levels over the previous several years, they were expected to record a drop due to the downturn. However, inflows of remittances saw record highs in 2009, and contributed to the y-o-y reduction of the current account deficit by 3.3 percentage points of GDP.

...high inflows due to borrowing from the IMF, bank borrowing, repayment of liabilities by businesses and substantial inflows of deposits...

Capital inflows amounted to €4,225 mn over the course of 2009. Of this amount €1,860 mn was accounted for by net FDIs, while other investment amounted to €2,906 mn. Foreign investment account inflows can be further disaggregated into funds drawn under the standby arrangement with the IMF (€1,114 mn) and additional special drawing rights allocated by the Fund (€422 mn).¹² Banks incurred liabilities amounting to an additional €894 mn in 2009, while businesses repaid their liabilities to the tune of €853 mn net. The cash and deposits account recorded inflows of a substantial €760 mn.

...as well as an increase in foreign currency reserves

Foreign currency reserves increased by €2,363.5 mn over the course of 2009 (as opposed to 2008, which had recorded a fall in foreign currency reserves of €1,686.6 mn, Table T4-1), with the greatest contribution made by assets granted by the IMF¹³ and the sale of NIS that took place early in the year.¹⁴

7 Indicating a recovery of trust in banks on the part of the population.

8 Such high foreign currency inflows in December were caused primarily by the drawing of the second tranche of the IMF loan, amounting to some €350 mn, the EIB loan of €29.5 mn, and EU macro-financial aid to the tune of €50 mn.

9 NBS actions resulted in the reduction of foreign currency reserves by €100.5 mn.

10 Mainly due to inflows of funds under two loans (World Bank and EIB) of €155 mn in total, <http://www.nbs.rs/internet/cirilica/scripts/showContent.html?id=3960&konverzija=no> (in Serbian).

11 According to NBS data, exports are expected to grow by 6.0% in 2010, while imports are set to rise by 2.5% at the y-o-y level.

12 See Section 4, "Balance of Payments and Foreign Trade", in *QM* 18.

13 Amounting to €1.54 bn.

14 This sale brought in €400 mn.

Foreign Debt

Table T4-2. Serbia: Foreign Debt by Structure, 2007-2009

	2007	2008				2009			
		Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
stocks, in EUR millions, end of the period									
Total foreign debt	17,789	17,957	18,647	20,530	21,800	21,445	21,687	21,784	22,787
(in % of GDP) ²⁾	60.2	52.4	54.4	59.9	63.6	67.8	68.5	68.9	72.0
Public debt	6,130	6,035	6,047	6,282	6,386	6,528	7,199	6,824	7,231
(in % of GDP) ²⁾	20.7	17.6	17.6	18.3	18.6	20.6	22.8	21.6	22.9
Long term	6,096	6,003	6,016	6,247	6,369	6,509	7,182	6,805	7,230
o/w: to IMF	0	0	0	0	0	0	771	757	1,110
Short term	34	32	32	35	18	19	18	19	2
Private debt	11,659	11,922	12,599	14,248	15,414	14,917	14,488	14,960	15,556
(in % of GDP) ²⁾	39.5	34.8	36.8	41.6	45.0	47.2	45.8	47.3	49.2
Long term	10,372	10,883	11,482	12,366	13,006	12,970	12,785	13,019	13,275
o/w: Banks debt	2,801	2,660	2,333	2,357	2,301	2,270	2,267	2,549	2,694
o/w: Enterprises debt	7,571	8,223	9,149	10,009	10,705	10,700	10,518	10,471	10,580
Short term	1,287	1,039	1,118	1,882	2,408	1,948	1,703	1,941	2,281
o/w: Banks debt	1,163	770	769	1,118	1,605	1,154	1,029	1,530	1,991
o/w: Enterprises debt	124	269	349	764	803	794	674	411	290
Foreign debt, net ¹⁾ , (in% of GDP) ²⁾	27.6	24.5	27.8	31.6	39.8	42.1	40.5	38.8	38.5

Source: NBS.

1) Total foreign debt less NBS currency reserves.

2) Data for 2008 is annual actual GDP in euros for that year. New, lower GDP values are used for 2009 (QM estimates).

At year-end 2009 Serbia's total foreign debt stood at €22.8 bn, or 72.0% of GDP

Public debt rose in 2009, as did borrowing by the banking sector...

...while businesses repaid their debts

The increase in overall foreign debt of €986.5 mn was caused primarily by rising public-sector debt

Total foreign debt rose in the last trimester of 2009 mainly due to foreign borrowing by the public sector and short-term borrowing by banks

According to NBS data, the foreign debt of the Republic of Serbia amounted to €22,787 mn at year-end 2009 (Table T4-2). The share of foreign debt in GDP exceeded 70% for the first time, reaching 72.0% at the end of December.

The share of total foreign debt in GDP was up 8.4 percentage points in December 2009 on year-end 2008. Most (nearly two thirds) of this growth is owed to the drop in the value of the denominator (a fall in the GDP due to recession and the depreciation of the dinar against the euro).¹⁵ However, one third of the increase was a consequence of the rise, in absolute terms, of foreign debt incurred in 2009 – which amounted to nearly a billion euros (€986.5 mn, Table T4-2).

Public-sector debt rose by €854 mn net in 2009, mainly spurred on by Serbia's arrangement with the IMF (which accounted for €1.1 bn of the increase in public-sector debt,¹⁶ Table T4-2). At the same time, additional foreign borrowing by the private sector amounted to €141.6 mn. Of this amount, the private sector incurred new long-term debt of €268.9 mn, while the value of short-term borrowing at year-end 2009 was lower by €127.4 mn than in the same period in 2008. Thus 2009 saw the public sector contribute by 85.7% to the rise in public debt; the contribution by the private sector was a mere 14.3%.

When the private sector is considered at the y-o-y level (year-end 2009 in relation to year-end 2008), the rise in foreign debt can be attributed exclusively to new borrowing by the banking sector, while businesses repaid their debts. Banks incurred nearly identical amounts of short-term and long-term debt in relation to the previous year (€385.1 mn and €393.5 mn, respectively), while businesses reduced their long-term liabilities by €124.5 mn and their short-term liabilities by €512.4 mn. Therefore, changes in the amount of Serbia's total foreign debt in 2009 were caused by rising public debt (a consequence of borrowing from the IMF) and greater borrowing by the banking sector on the one hand, and, on the other, by the reduction in foreign debt on other grounds¹⁷ and the repayment of liabilities by businesses.

Foreign debt increased substantially over the last trimester of 2009. In relation to total foreign indebtedness as of late September, the figure was higher by about one billion euros in late

¹⁵ See "Balance of Payments and Foreign Trade" sections in previous issues of QM.

¹⁶ Funds drawn so far under the standby lending arrangement amount to €1.1 bn. The arrangement totals €2.9 bn, and was approved by the IMF on 15 May 2009. Portions of these funds were drawn in 2009 (€1.1 bn) in two instalments, the first, amounting to €790 mn, on 20 May 2009, and the second, of €350 mn, on 29 December. The funds are intended to be used to boost foreign currency reserves and ensure Serbia's macroeconomic stability over a two-year period.

¹⁷ Serbia's public debt was reduced primarily by the fact that the World Bank decided, in August, to write off a part of Kosovo and Metohia debt amounting to \$550 mn (around €400 mn).

4. Balance of Payments and Foreign Trade

December. A greater contribution to this Q4 increase was made by the private sector (60%), while the public sector's contribution amounted to 40%. As discussed above (in the Balance of Payments section), Q4 saw banks incur substantial short-term debt, thereby contributing to the overall quarterly increase in total debt by as much as 46%. Additional government borrowing from the IMF over the last three months of 2009 contributed by 35% to the increase in foreign debt.¹⁸ The remainder of the increase is owed to long-term borrowing by businesses and new borrowing by the public sector from other lenders.

Foreign debt is expected to grow further in 2010

Foreign debt amounted to 72.0% of GDP at year-end 2009. However, it is highly likely that foreign debt will rise further in 2010, mainly due to financing of the fiscal deficit. We estimate that the fiscal deficit will lead to an increase in foreign borrowing amounting to 3 percentage points of GDP.¹⁹ This financing of public debt through new borrowing, with the private sector likely to incur new debt, clearly indicates a lack of cautionary measures; moreover, it suggests that foreign borrowing is set to rise further in 2010, taking Serbia close to the critical limit of an 80% share of foreign debt in GDP.

Exports

Table T4-3. Serbia: Exports, Y-o-y Growth Rates, 2008-2009

	Exports share in 2009	2009				2008				2009			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	%	mil.euros								y-o-y growth rate (%)			
Total	100.0	1,276	1,529	1,551	1,603	20.5	23.8	19.6	1.7	-23.8	-22.5	-24.9	-7.2
Bulky exports	24.2	296	350	385	408	1.9	13.8	8.0	-0.2	-36.0	-36.1	-35.9	-0.1
Iron and steel	7.7	101	85	131	143	3.6	40.6	36.0	-10.7	-54.0	-72.7	-56.3	8.0
Non ferrous metals	5.3	65	76	90	85	4.5	-0.9	-1.2	-25.7	-48.4	-41.1	-33.4	-5.8
Fruits and vegetables	5.4	62	84	98	79	13.9	-14.5	-8.0	-0.9	-5.2	30.0	-9.6	-10.2
Cereal and cereal products	5.7	68	106	66	101	-19.1	-20.3	-29.6	93.4	30.3	141.6	16.0	3.2
Underlying exports	75.8	980	1,179	1,166	1,195	29.6	28.0	25.0	2.3	-19.2	-17.3	-20.4	-9.4
Core	30.3	429	467	441	468	23.5	13.7	9.3	-9.8	-21.8	-20.3	-27.8	-10.8
Clothes	6.5	115	109	79	81	15.5	12.0	2.4	22.1	29.5	32.5	-9.6	-24.4
Miscellaneous manufactured articles, n.e.s.	4.1	50	61	66	67	50.7	25.4	9.1	-13.5	-35.2	-24.0	-23.2	-7.1
Manufactures of metals, n.e.s.	4.0	48	65	62	62	26.9	1.3	-0.5	-10.3	-36.4	-20.7	-24.4	-20.3
Rubber products	2.8	44	39	43	43	3.3	5.5	27.8	-19.2	-22.5	-32.2	-32.3	3.8
Electrical machinery, apparatus and appliances	5.0	62	74	77	87	50.9	21.7	30.3	2.8	-1.0	4.0	-6.1	18.3
Organic chemicals	0.5	8	6	5	13	7.9	25.7	-5.3	-50.3	-83.1	-88.0	-90.1	-55.2
Plastics in primary forms	1.2	20	19	4	26	34.4	10.1	6.7	-41.9	-49.9	-53.1	-88.4	16.5
Footwear	2.3	37	33	39	30	15.8	8.4	9.0	3.8	-8.4	-19.5	-13.6	-19.7
Paper, paperboard and articles of paper pulp	2.4	32	38	36	35	21.4	13.5	1.9	-7.2	-2.0	-3.3	4.1	9.2
Non-metal mineral produce	1.5	13	24	30	24	10.3	19.9	16.7	-4.9	-54.7	-46.1	-33.5	-23.5
Other	45.6	551	712	724	727	35.0	40.4	39.4	12.2	-17.0	-15.1	-15.2	-8.5

Source: SORS.

Q4 saw a lower y-o-y drop in exports in relation to all y-o-y falls recorded in 2009...

The value of total exports, as well as exports disaggregated by component, shows a lower y-o-y drop in relation to all y-o-y falls in exports seen in the course of 2009 (Table T4-3). This was to a great extent the consequence of the fact that the global financial downturn had already impacted exports in Q4 2008, causing a low base for comparison and further complicating any estimate of actual recovery.

Seasonally-adjusted export values for Q4 exceeded other quarterly figures recorded in 2009...

Seasonally-adjusted exports (Graph T4-4) also indicate that the last trimester of 2009 recorded values lower than those seen in the same period one year previously, with a y-o-y fall of 8.2%. This suggests that a substantial recovery in exports in relation to last year's figures has yet to occur, or rather that pre-crisis export levels have not yet been reached. The same data, however, show that, in the last quarter of 2009, seasonally-adjusted exports exceeded values seen in the preceding three quarters. Thus the Q4 2009 value is 4.2% higher than the Q1 2009 seasonally-adjusted value, or 2.9% higher than the value recorded in Q2 2009. Exports grew by 6.0% in Q4 in relation to Q3, an increase of 26.2% at the annual level (Graph T4-4). Seasonally-adjusted exports therefore lead one to conclude that the value of goods exported in Q4 exceeds that seen in preceding quarters of 2009, and that the lower negative y-o-y changes to exports seen in Table T4-3 were partly the result of gradual recovery.

...but remained below levels seen in Q4 2008

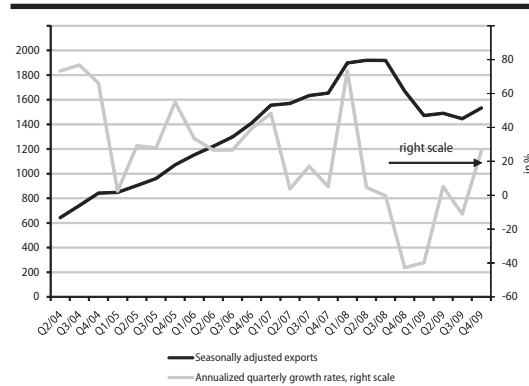
¹⁸ New government borrowing from the IMF amounted to €350 mn as the second tranche under the standby arrangement was drawn on 29 December 2009 (see Footnote 16).

¹⁹ See Highlights 1: M. Arsić, "Fiscal Policy in 2010", QM 18.

December again saw a drop in seasonally-adjusted value

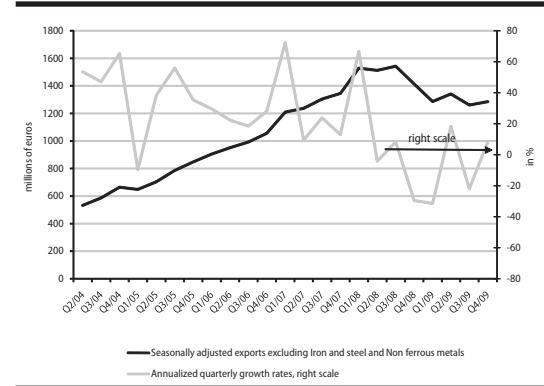
The monthly series of seasonally-adjusted total exports indicates that growth was recorded for three months in a row over the second half of 2009: September on August (growth of 4.7%), October on September (growth of 3.7%), and November on October (growth of 0.8%). In a reversal of this trend, the last month of 2009 saw a drop in seasonally-adjusted exports of 1.8% in relation to one month previously.

Graph T4-4. Serbia: Seasonally-Adjusted Exports, by Quarter, 2004-2009



Source: SORS, QM.

Graph T4-5. Serbia: Seasonally-Adjusted Exports, Less Iron and Steel and Non-Ferrous Metals, by Quarter, 2004-2009



Source: SORS, QM.

When the seasonally-adjusted exports series excluding metals is considered, actual recovery does not appear certain

Seasonally-adjusted exports less iron and steel and non-ferrous metals slumped by 9% over the last quarter of 2009 in relation to Q4 2008. The quarterly series for these exports indicates that their highest value was recorded in Q2. In the fourth trimester, seasonally-adjusted exports less iron and steel and non-ferrous metals stood at the Q1 2009 level (or, rather, were lower by a mere 0.01%), 4.12% down in Q2. In relation to Q3, Q4 saw an increase of 2.0%, or 8.3% at the annual level.

As with the quarterly seasonally-adjusted exports series, the monthly series does not lend itself to simple conclusions. After seeing monthly growth in September on August, of 5.6%, and in October on September, of 1.4%, exports again slumped 0.9% in November on October and 1.4% in December on November. Any conclusion as to the recovery of exports based on seasonally-adjusted data and the two initial components of *bulky exports* remains without clear argumentation.

The value of total exports amounted to €1.6 bn in Q4 2009...

According to SORS data (Table T4-3), the value of total exports amounted to €1.6 bn in Q4 2009. As has already been discussed, a slight y-o-y drop in total exports was recorded in Q4 (-7.2%, Table T4-3) relative to y-o-y falls seen in all preceding quarters of 2009 (Q1: -23.8%, Q2: -22.5% and Q3: -24.9%).

...a drop of 7.2% at the y-o-y level

When main components of exports are considered individually, *underlying exports* are seen to have recorded a slight y-o-y drop (-9.4%) in Q4 relative to preceding quarters of 2009; *bulky exports* remained at last year's levels.

Q4 saw bulky exports remain at last year's levels, while underlying exports recorded a minor drop relative to preceding quarters

A sudden change can be observed in the export trend of iron and steel, a component of *bulky exports* – y-o-y growth of 8.0% in Q4 after high negative rates seen in the preceding three quarters of 2009 (Table T4-3). As already discussed in previous issues of *QM*, the price of steel began to fall in late 2008, with this downward trend continuing into 2009. The average price of steel was at its lowest in Q2 2009, only to gradually start rising again thereafter. In the fourth quarter, the average dollar price of steel in the European market was up 3.6% on the preceding quarter, yet still 20% down on the average Q4 2008 price. Thus the high negative y-o-y rates that were the hallmark of the first three quarters of 2009 were the result of falling prices and cuts in production (due to a global fall in both demand and prices). However, in spite of the fact that steel prices remained relatively low in Q4 2009 in relation to the last quarter of 2008, the change in the export trend indicates that US Steel Serbia produced and exported more in Q4.²⁰

Exports of iron and steel grew in Q4 in spite of a y-o-y fall in the price of steel...

²⁰ Production at US Steel Serbia has risen substantially since August, when production was moved to Serbia because of a refit at the company's Kosice, Slovakia plant.

4. Balance of Payments and Foreign Trade

Serbia's goods exports slumped by a fifth relative to 2008

The total value of goods exported in 2009 was €5,958.7 mn, a drop of 19.9% in relation to 2008. The greatest y-o-y fall was recorded by organic chemicals (-81.7%), plastics in primary forms (-50.7%), and iron and steel (-52.0%), while cereals and cereal products saw greatest export growth in 2009 (36.1%).

Imports

Total value of goods imported in Q4 2009 amounted to €3 bn, 18.8% less than in Q4 2008

According to SORS data, the total value of goods imported in the last quarter of 2009 stood at three billion euros (Table T4-6). The amount of goods imported fell by as much as 18.8%. The fact that the fall in imported value (both overall and by component) was lower in Q4 2009 than in the preceding three quarters is to a great extent the consequence of the low comparison base (i.e. the low value of imports in late 2008 – directly caused by the global financial downturn).

Table T4-6. Serbia: Imports, Y-o-y Growth Rates, 2008-2009

	Imports share (2009)	2009				2008				2009			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	in %	mil.euros											
		y-o-y growth (%)											
Total	100.0	2,683	2,716	2,703	3,009	22.8	27.5	19.1	-2.8	-25.7	-33.8	-32.6	-18.8
Energy	17.1	565	384	422	532	32.5	53.2	51.2	5.7	-28.3	-49.8	-47.0	-27.7
Intermediate products	34.2	831	956	998	1,012	16.2	16.0	12.8	-5.9	-30.8	-33.6	-31.8	-16.4
Capital products	23.5	612	683	636	685	19.5	32.6	10.4	-11.9	-28.0	-38.2	-35.5	-22.3
Capital products excluding road vehicles	16.1	438	439	407	506	9.3	29.3	13.1	-6.0	-21.3	-39.2	-38.7	-22.5
Durable consumer goods	3.9	112	99	99	123	31.3	34.8	13.5	2.6	-15.8	-37.1	-31.5	-23.6
Non-durable consumer goods	18.1	463	495	488	564	26.6	21.1	19.5	4.2	-10.4	-8.7	-10.4	-6.4
Other	3.2	100	99	60	93	32.4	16.6	12.3	21.2	-19.5	1.9	-19.9	-19.2
Imports excluding energy	82.9	2,118	2,332	2,280	2,476	20.3	22.8	13.1	-4.7	-25.0	-30.2	-29.0	-16.6

Source: SORS.

The non-standard comparison base makes it impossible to reach clear conclusions on movements in total imports and import components...

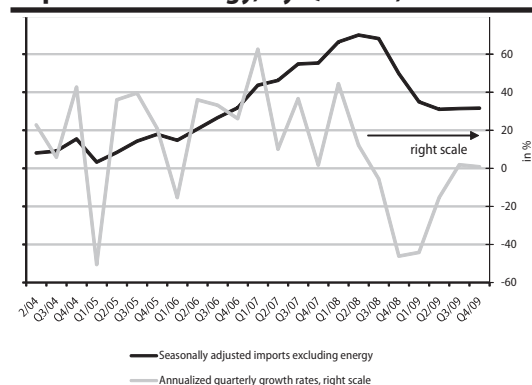
...leading us to consider the seasonally-adjusted series of import values...

...which shows imports remained unchanged in the second half of 2009

The greatest fall in imports in 2009 in relation to 2008 was recorded by energy (-38.3%), and the lowest by non-durable consumer goods (-8.9%)

To establish whether the slight drop in imports was partly the result of real recovery, we considered seasonally-adjusted imports less energy (Graph T4-7). The seasonally-adjusted value of imports less energy amounted to €2,289.6 mn in Q4. Movements in these imports indicate that, after they saw a sharp drop in late 2008 and early 2009, Q2 recorded a slowdown in the slide (imports in Q2 were 4.1% down on Q1); seasonally-adjusted figures for the second half of the year indicate stagnation. Seasonally-adjusted imports less energy grew in Q3 by a mere 0.4% on Q2. In the last quarter of 2009 these imports recorded a value 0.2% above that seen in Q3, growth of a modest 0.7% at the annual level (Graph T4-7). This indicates that imports have yet to start growing, although their slide has already been halted for half a year.

Graph T4-7. Serbia: Seasonally-Adjusted Imports Less Energy, by Quarter, 2004-2009



Source: SORS, QM.

Imports of goods amounted to €11,109.7 mn in 2009, down 28.0% on 2008. The greatest fall in imports in relation to 2008 was seen by energy (38.3%), followed by *capital goods* (31.1%) and intermediate goods (28.6%). Imports of durable consumer goods fell by 27.3% in 2009, while those of products belonging to the *other* component was down 14.4% on last year. Non-durable consumer goods saw the lowest drop in imports (-8.9%). The pronounced y-o-y slump in energy imports is mainly due to the change in energy prices in the global market. As has already been discussed in previous issues of *QM*, energy prices reached extremely high values in 2008; this was followed by a sudden drop, only for these prices to start rising again since early 2009. According to IMF data, the average 2009 dollar price of energy was 36.9% lower than last year's average. As the euro's y-o-y appreciation against the dollar amounted to 5.3%, the average euro price of energy recorded a drop of 33.5% on the annual level. In view of the fact that the overall y-o-y fall in the value of energy imports amounted to 38.3%, as well as the change in average price referred to above, quantities of energy imported were a mere 7.2% lower. The fall in the value of other products mentioned above is a

**2009 saw exports slump
by less than imports...**

**...a deficit substantially
lower than last year's,
and a rise in the exports
to imports ratio**

clear indicator of the recession facing Serbia: marked slumps in capital and intermediate goods were caused by the fall in domestic production, while the pronounced fall in durable goods and products from the *other* category was the consequence of a slide in personal consumption. The cut in consumption by households was reflected mainly on durable consumer goods. On the other hand, the y-o-y fall in imports of non-durable consumer goods proved to be the lowest. These imported products mainly fulfil basic needs, and were thus least exposed to effects of recession in 2009.

The total value of Serbia's 2009 foreign trade deficit stood at €5,150.9 mn, a fall of 35.5% in relation to the deficit recorded in 2009. As exports saw a lower y-o-y drop than imports (19.9% and 28%, respectively), the exports to imports ratio rose by 5.4 percentage points in 2009 in relation to one year previously – the figure for 2009 was 53.6%, as opposed to 48.2% in 2008.

5. Prices and the Exchange Rate

The fact that recession had substantially calmed inflation was borne out in the fourth quarter (Q4) of 2009. Underlying inflation (Consumer Price Index excluding prices of food, energy, alcoholic beverages and tobacco) stood at 3.2% at the annual level in Q4, while it had amounted to 5.8% in the preceding quarter and over 10% in the first half of the year. As for overall inflation (as measured using the Consumer Price Index), it was very low in Q4, standing at 0.4%, or 1.6% when annualized. Such low inflation was primarily caused by a slight drop in the prices of food, and moderate growth in those of most other products and services. Overall inflation thus stood at 6.6% at the end of 2009, close to the lower edge of the NBS target band (6-10%). By way of a reminder, inflation in the first half of the year amounted to as much as 7.0%, primarily due to rising prices of oil and administratively-controlled prices. Mild deflation occurred in the second half of the year (or, more accurately, deflation was recorded in Q3, followed by very slight price growth in Q4). The exchange rate of the dinar remained very stable in the first half of Q4; depreciation ensued since mid-November and continued into January and February 2010. Total depreciation of the dinar against the euro in Q4 2009 and the first two months of 2010 amounted to some 6%.

Prices

Inflation in Q4 is very low

Following deflation in the preceding quarter, Q4 saw a rise in prices, albeit a very slight one – the Consumer Price Index (CPI) rose by 0.4% in Q4, or 1.6% when annualized (Table T5-1). The Consumer Price Index saw a drop of 0.7% in Q3, or 2.9% when annualized. Year-on-year price growth stood at 5.9% in Q4, as against 7.9% in the preceding quarter.

Table T5-1. Serbia: Consumer Price Index, 2007-2009

	Consumer price index				
	Base index (avg. 2006 =100)	y-o-y growth	cumulative index	monthly growth	3m moving average, annualized
2007					
Mar	102.5	4.1	0.7	0.6	2.8
Jun	105.5	4.0	3.7	0.4	12.7
Sep	109.5	8.0	7.6	1.6	16.8
Dec	113.0	11.0	11.0	1.2	13.1
2008					
Mar	116.4	13.6	3.0	1.6	12.7
Jun	121.2	14.8	7.2	0.7	17.4
Sep	121.4	10.9	7.5	1.0	0.9
Dec	122.7	8.6	8.6	-0.9	4.4
2009					
Mar	127.4	9.4	3.8	0.4	16.3
Jun	131.3	8.3	7.0	0.0	12.6
Jul	130.0	8.5	5.9	-0.9	4.5
Aug	129.9	8.0	5.9	-0.1	-4.1
Sep	130.3	7.3	6.2	0.3	-2.9
Oct	130.1	5.2	6.0	-0.2	0.1
Nov	131.1	5.9	6.9	0.8	3.9
Dec	130.8	6.6	6.6	-0.3	1.6

Source: SORS.

* Monthly moving averages for three months, annualized (e.g. the March value was obtained by annualizing monthly price growth for January, February and March).

Prices of foodstuffs are decreasing in Q4

Low Q4 inflation was mainly the consequence of a slight drop in the price of foodstuffs. Their prices went down by a relatively modest -0.5% in Q4, but as food is highly weighted in the CPI its contribution to overall price growth was considerable, at -38% (Table T5-2). On the other hand, prices of clothing and shoes rose by 2.6% in Q4, with their contribution to overall price

growth in this quarter standing at 42%. Prices of oil products rose by 3.3%, while their contribution to overall price growth was 39%. Other products and services recorded only minor price fluctuations in Q4.

Table T5-2. Serbia: Consumer Price Index, Contribution to Growth by Selected Components, 2009

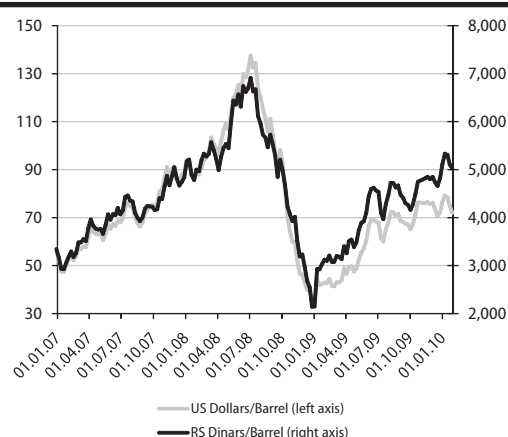
	Share in CPI (in %)	Price increase in H1 (in %)	Contribution to overall CPI increase in H1 (in %)	Price increase in Q3 (in %)	Contribution to overall CPI increase in Q3 (in %)	Price increase in Q4 (in %)	Contribution to overall CPI increase in Q4 (in %)
Total	100.0	7.0	100.0	-0.7	100.0	0.4	100.0
Food and non-alcoholic beverages	34.3	5.3	25.9	-3.9	183.7	-0.4	-34.8
Food	30.8	5.0	21.7	-4.4	185.5	-0.5	-38.2
Alcoholic beverages and tobacco	4.8	14.7	10.1	0.3	-1.8	-0.2	-2.3
Clothing and footwear	6.5	2.5	2.3	1.3	-11.3	2.6	42.1
Housing, water, electricity, gas and other fuels	16.5	4.7	10.9	1.6	-35.2	0.5	19.8
Furniture, household equipment, routine maintenance	5.5	3.4	2.6	3.1	-23.0	0.7	9.3
Health	4.6	15.6	10.2	-0.7	4.7	-1.8	-21.0
Transport	11.5	17.4	28.3	1.2	-18.6	1.9	54.1
Oil products	4.7	34.8	23.0	2.3	-14.4	3.3	38.9
Communications	3.0	9.1	3.9	1.2	-5.1	0.7	5.4
Other items	13.3	..	5.8	..	6.7	..	..

Source: SORS.

Crude oil prices in RSD are a quarter lower than record highs, while petroleum products in Serbia are back at record levels

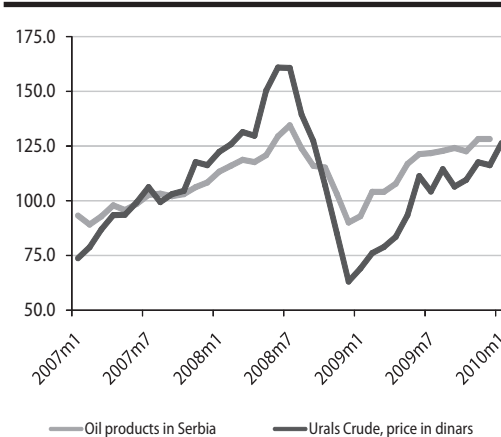
In view of major changes in the global price of crude oil over the previous two years, it is interesting to compare movements in the price of crude and the movement of prices in oil products in Serbia. The price of Urals crude oil¹ fluctuated between \$70 and \$75 a barrel between December 2009 and January 2010. The price as expressed in the Serbian currency was about 5,000 dinars/barrel, some 75% of the historic maximum recorded in June and July 2008 (Graph T5-3). On the other hand, prices of oil products in Serbia in December 2009 and January 2010 virtually returned to record values of June and July 2008 (Graph T5-4). This fact (the return of oil product prices in Serbia to historic maximums, despite crude oil prices in dinars being lower by about a quarter than those maximums) can be explained by rises in excise duties on oil products that mainly took place in the first half of 2009.

Graph T5-3. World: Weekly Urals Crude Prices, in USD and RSD, 2007-2010



Source: Energy Information Administration, US Department of Energy.

Graph T5-4. Serbia: Prices of Urals Crude and Oil Products in Serbia, 2006 Average = 100, 2007-2010



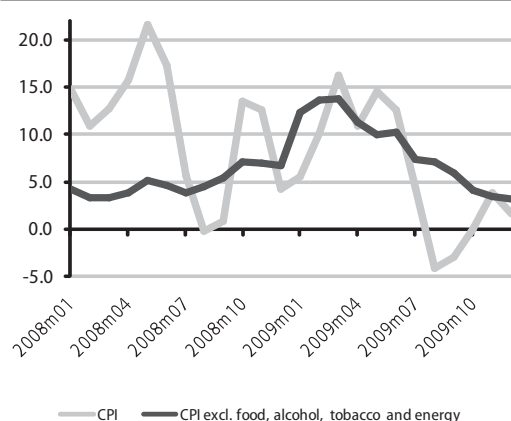
Source: SORS and EIA, US Department of Energy.

Underlying inflation is slowing down, due to subdued demand...

The fourth quarter saw a further slowdown in underlying inflation (inflation excluding prices of food, alcoholic beverages, tobacco and energy), continuing a trend seen over the preceding two quarters. Underlying inflation in Q4 amounted to 0.8%, or 3.2% when annualized, whereas it had stood at 5.8% at the annual level in the preceding quarter (Graph T5-4). This deceleration was caused by recession – lower economic activity and weak demand. Underlying inflation

¹ The price of Urals crude oil is the benchmark for oil product prices in Serbia.

Graph T5-5. Serbia: CPI and Underlying Inflation Trend, Annualized Rates, in %, 2008-2009



Source: SORS and QM estimates.

Note: Graph rates represent monthly moving averages for three months, annualized

...and it is now at a level comparable to other similar countries

was relatively high in the first half of the year (13.8% when annualized in Q1 and 10.3% when annualized in Q2), which can nonetheless be ascribed to administrative measures (e.g. rises in prices of medicines and landline telephone charges).

Underlying inflation in Serbia in Q4 stood at a level comparable to that seen in new EU member states (Table T5-6) after recording high values, above averages recorded by those countries, in the first half of the year. Underlying inflation amounted to some 3% at the annual level in Q4 in Serbia, Bulgaria and Romania, as opposed to figures seen in Central European countries, from -1.5% in the Czech Republic to 1.4% in Slovenia. The Baltic states recorded deflation in Q4.

When the period since the beginning of the crisis (i.e. starting in September 2008) to late 2009 is taken into account, it becomes apparent that underlying inflation in Serbia was highest among the group of countries examined (Table T5-6, last column). The total growth of underlying prices in Serbia in this period amounted to 10.0%.

In addition to Serbia, other countries seeing slightly higher underlying inflation were Romania and Hungary, while other countries saw price growth of less than 5% over this period. In the Baltic states, which recorded the deepest recession, underlying inflation was either negative or very low in the same period.

Table T5-6. Selected Countries: Underlying Inflation (CPI less Food, Energy, Alcoholic Beverages and Tobacco), 2008-2009

	2008Q1	2008Q2	2008Q3	2008Q4	2009Q1	2009Q2	2009Q3	2009Q4	2009m12/ 2008m9
	annualized rates, in %								total increase, in %
Bulgaria	13.0	8.7	9.9	5.1	3.1	0.9	2.5	3.2	3.7
Romania	8.7	1.2	0.9	9.7	13.1	1.0	2.9	2.7	7.3
Czech Rep.	15.6	1.1	0.0	-3.0	4.2	0.4	-1.9	-1.5	-0.5
Hungary	6.4	2.8	-0.2	1.9	4.1	7.4	9.0	0.2	5.6
Poland	4.0	2.3	0.8	0.8	4.3	5.0	0.8	0.4	2.8
Slovakia	5.2	1.7	4.1	2.4	1.5	0.1	0.5	0.6	1.3
Slovenia	3.6	6.3	0.3	4.2	1.2	3.4	-5.6	1.4	1.1
Estonia	7.8	5.0	5.5	0.4	-2.8	-0.1	3.0	-3.2	-0.7
Latvia	13.9	6.2	9.6	-1.6	9.4	-4.4	-5.1	-6.7	-2.3
Lithuania	8.0	7.6	5.5	2.6	6.8	-4.7	1.6	-3.9	0.5
Euro zone	1.2	2.2	0.6	3.5	-0.4	1.9	-0.1	3.0	2.0
EU	1.3	2.6	1.0	2.5	0.4	2.4	0.7	2.2	2.0
Serbia	3.4	4.7	5.4	6.7	13.8	10.3	5.8	3.2	10.0

Source: Eurostat, SORS and QM estimates.

Inflation at the end of 2009 is well within NBS target band

Overall inflation in Serbia (as measured using the Consumer Price Index) amounted to 6.6% at year-end 2009. This figure is close to the lower edge of the NBS target band (of 6 to 10 per cent). Inflation stood at as much as 7.0% in the first half of the year, causing concern among the public that inflation would breach the upper edge of the NBS target band. However, we had estimated (as published in previous issues of QM) that recession and the fall in economic activity would cause a major reduction in inflation, and that it would remain well within the NBS target band at year-end. Movements in inflation in the second half of the year (deflation of 0.7% in Q3 and very low price growth, of 0.4%, in Q4) proved this estimate right.

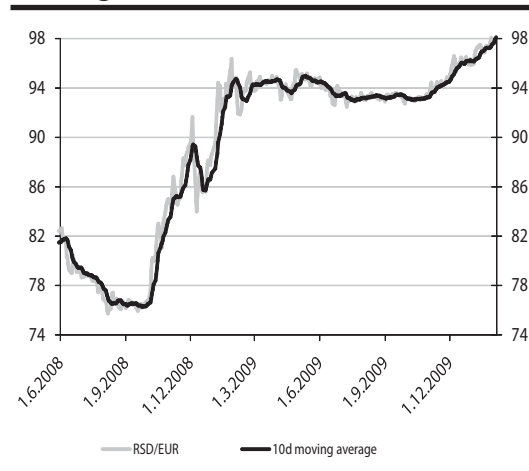
In Q1 2010 we expect higher inflation, due to electricity price hikes

In the first quarter of 2010 we can expect to see greater price growth than in Q4 2009, due to the likely 10% hike in the price of electricity, which will directly contribute some 0.7 percentage points to price growth. In addition, Q1 generally sees a seasonal rise in the prices of foodstuffs. If the expected increase in the price of electricity and the seasonal rise in the price of food do go ahead, total inflation in Q1 2010 could reach between 2 and 2.5 per cent.

Exchange Rate

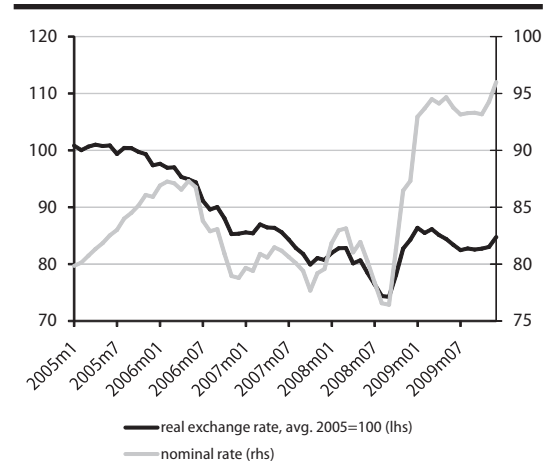
The nominal dinar/euro exchange rate was very stable in the first half of Q4, but then began to nominally depreciate in the second half of the quarter. Thus in late Q4 the dinar lost some 3% to the euro in relation to late Q3 levels. Nominal depreciation continued into January and February, when the dinar slid by nearly another 3%. Overall nominal depreciation of the dinar against the euro in Q4 and January and February in relation to late-September levels amounted to some 6% (Graph T5-7).

Graph T5-7. Serbia: Daily RSD/EUR Exchange Rate, 2008-2009



Source: NBS, Eurostat.

Graph T5-8. Serbia: Nominal and Real RSD/EUR Exchange Rate, Monthly Average, 2005-2009



Source: NBS, Eurostat.

Dinar is depreciating since mid-November...

...and NBS is again intervening in foreign exchange market

The National Bank of Serbia (NBS) again began to intervene in the foreign exchange market to dampen this depreciation trend. During the course of Q4 the NBS intervened twice, both times in December, to the tune of €100 mn in total. Further interventions by the NBS ensued in January and February, with the Bank spending slightly over €400 mn.

Affected by this nominal depreciation, the real dinar/euro exchange rate slid by 2.7% in Q4 in relation to end-Q3 levels. This put an end to the trend of mild real appreciation in evidence from March 2009 to the third quarter of that year (Graph T5-8). When 2009 is viewed as a whole, the dinar lost a mere 0.6% in real terms to the euro (Table T5-9).

But real exchange rate is just 2% weaker compared to Q1 2008

The real dinar/euro exchange rate at year-end 2009 was down by 14% in relation to levels recorded in September 2008 (the start of the financial crisis), or by just 2% in relation to values seen in Q1 2008.

Table T5-9. Serbia: RSD/EUR Exchange Rate, 2005-2010

	Nominal				Real			USD/EUR Rate ⁶⁾
	exchange rate (FX) ¹⁾	base index ²⁾ (avg.2005 = 100)	y-o-y index ³⁾	cumulative index ⁴⁾	real FX ⁵⁾ (avg.2005 = 100)	y-o-y index ³⁾	cumulative index ⁴⁾	
monthly exchange rate								
2006								
December	78.7812	95.0	91.7	91.7	85.4	87.7	87.7	1.3210
2007								
December	79.5669	96.0	101.0	101.0	80.7	94.6	94.6	1.4563
2008								
March	83.1319	100.3	102.8	104.5	82.8	95.2	102.6	1.5516
June	80.2460	96.8	98.9	100.9	78.5	91.7	97.2	1.5556
September	76.4226	92.2	96.3	96.0	74.2	90.8	92.0	1.4387
October	81.2956	98.0	104.7	102.2	78.1	97.7	96.7	1.3309
November	86.4508	104.3	109.2	108.7	82.7	102.0	102.5	1.2726
December	87.3002	105.3	109.7	109.7	84.3	104.4	104.4	1.3482
2009								
January	92.9458	112.1	113.6	106.5	86.4	105.4	102.5	1.3327
February	93.6865	113.0	112.9	107.3	85.5	103.2	101.4	1.2797
March	94.4951	114.0	113.7	108.2	86.1	104.0	102.2	1.3041
April	94.1074	113.5	116.1	107.8	85.1	106.3	101.0	1.3204
May	94.6553	114.2	115.5	108.4	84.4	104.7	100.2	1.3640
June	93.7408	113.1	116.8	107.4	83.4	106.3	99.0	1.4027
July	93.1547	112.3	118.9	106.7	82.4	107.9	97.8	1.4081
August	93.2647	112.5	121.8	106.8	82.7	111.2	98.2	1.4258
September	93.2990	112.5	122.1	106.9	82.5	111.2	98.0	1.4554
October	93.1665	112.4	114.6	106.7	82.7	106.0	98.2	1.4822
November	94.2672	113.7	109.0	108.0	83.0	100.4	98.5	1.4922
December	95.9833	115.8	109.9	109.9	84.7	100.6	100.6	1.4597
2010								
January	97.2874	117.3	104.7	101.4	..	..	..	1.4281

Source: NBS, SORS, Eurostat.

1) Monthly average, official daily NBS mid rate. 2) Ratio of fx in Column 1 and average fx in December 2002. 3) Ratio of fx in Column 1 and fx for the same period in previous year. 4) Cumulative is the ratio of given month and December of previous year. 5) The calculation of the real exchange rate takes into account Eurozone inflation. Index calculation: $RE = (NE/p) \times p^*$, where: RE - real fx index; NE -nominal fx index; p - Serbia RPI index; p* - Euro area CPI index. 6) Period average.

6. Fiscal Flows and Policy

Data for the fourth quarter (Q4) show that the recovery in public revenues is still uncertain. While public revenues showed a clear growth trend in Q3, they fell back again in the course of Q4. Real, seasonally adjusted revenues of the consolidated state sector fell by 2.3% in Q4 2009 against Q3. But compared with Q4 2008, real public revenues in Q4 2009 were 5% lower. In the course of Q4, the trend of real decline in consolidated spending of the state sector continued and seasonally adjusted spending of the state sector in Q4 was 5.4% lower in real terms against Q3. Compared with Q4 2008, consolidated public spending in Q4 2009 was 9.2% down in real terms. The consolidated deficit of the state sector in Q4 stood at 40 billion dinars (around 5% of GDP in Q4). The total revenues of the consolidated state sector in the course of 2009 fell by 8.7% in real terms and spending fell by 4.8% in real terms compared with 2008. As a result, the consolidated deficit of the state sector in 2009 rose to nearly 122 billion dinars or around 4.1% of GDP for 2009, which is lower than the deficit target agreed with the IMF (4.5% of GDP). Serbia's budget revenues, dominated by consumption taxation, rose in January against the same month of 2009, but it is uncertain if the same is the case with consolidated public revenues, dominated by social contributions and income tax, which have been declining in real terms for months. In January 2010, Serbia's budget revenues posted a real growth (3%) and spending (4%) against the same month of 2009. The budget deficit in January was low, at around 1.5 billion dinars, mainly due to seasonal factors. At the end of 2009, Serbia's total public debt stood at 9.85 billion euros (31.3% of GDP¹), roughly the same as at the end of Q3, but some 5.7% more than at the end of 2008.

General Trends and Macroeconomic Implications

Following growth in the previous quarter, seasonally adjusted public revenues fell by 2.3% in Q4 against Q3

In the course of Q4 2009, seasonally adjusted revenues of the consolidated state sector fell by 2.3% in real terms against the previous quarter. Consolidated public revenues in Q4 2009 fell by 5% in real terms against the same period of the previous year.

By separate kinds of taxes, revenues from taxes on consumption stabilised in Q4, while taxes on production factors significantly fell

Looking at separate tax kinds, one can notice a further stabilisation in Q4, i.e. a moderate recovery in taxation on consumption (VAT and excise duties), which are extremely flexible to economic activity and domestic demand (absorption). Real seasonally adjusted revenues from VAT were roughly the same as the revenue collected in Q3 (in Q3 those revenues rose significantly, by 8.6% against Q2), while revenues from excise duties rose by 4% against Q3. But unlike those revenues, real seasonally adjusted revenues from taxes on production factors (income tax, corporate income tax, social contributions) saw an accelerated decline in Q4.

A trend of real decline in consolidate public spending continues in Q4 against the previous quarter

In the course of Q4, seasonally adjusted spending of the state sector fell by 5.4%, extending its decline in real terms. For the first time since the start of the year, all main categories of seasonally adjusted spending in real terms fell against the previous quarter. The most pronounced decline was seen in the category of spending on subsidies and capital spending. For the first time since QM started to follow fiscal developments, spending on pensions fell in real terms against the same quarter of the previous year. Compared with Q4 2008, consolidated spending of the state sector in Q4 2009 was 9.2% lower in real terms, which is the biggest year-on-year decline seen in the course of 2009.

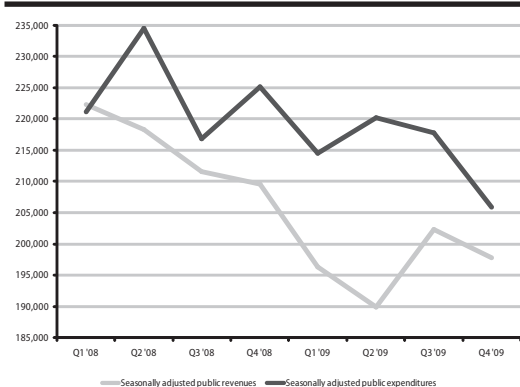
Consolidated deficit in Q4 stood at 40 billion dinars (around 5% of quarterly GDP)

As a result of abovementioned developments in Q4, the consolidated fiscal deficit amounted to 40 billion dinars, which was roughly 5% of (quarterly) GDP in Q4. The major part of the Q4 deficit was created in December (around 26 billion dinars), due to a significant increase in spending on purchases of goods and services, spending on employees and social transfers, which materialised after the Law on Revised Budget of the Republic for 2009 was adopted.

¹ According to the Ministry of Finance calculations.

During the whole of 2009, total public revenues fell by 8.7% in real terms against 2008 (first of all due to a significant decline in revenues from VAT and customs duties)

Graph T6-1. Serbia: Seasonally Adjusted Real (Quarterly) Revenues and Spending of the State Sector, in millions of RSD (2005=100)



Source: Calculations by the author.

In the course of entire 2009, total public revenues fell 8.7% in real terms against 2008. Looking at 2009 as a whole, the major reason for the revenue decline came from VAT and customs duties, which fell due to a significant decline in domestic demand by around 8% and to a lesser extent due to the implementation of the Stabilisation and Association Agreement with the European Union. In the second half of 2009, revenues from taxes on consumption showed a growth trend, but revenues from taxes on income and social contributions started to significantly decline. The real decline in revenues from income tax and social security contributions resulted from a nominal freeze of pensions and public sector wages and falling employment in the private sector. The real decline in revenues from direct taxes is expected to continue in the course of 2010. A possible end to pension and wage freeze in 2010 would lead to higher revenues from personal income tax and social security contributions, but that growth would be lower than an increase in public spending. Also, the macroeconomic impact of a premature increase in domestic demand, through higher pensions and public sector wages, at the time of stagnating domestic output, would result in a renewed expansion of trade deficit, external debt and rising inflation.

Consolidated spending of the public sector in the entire 2009 fell by 4.8% in real terms against 2008

Consolidated spending of the state sector in the course of the entire 2009 was 4.8% down compared with 2008, which is owed first of all to a pension and nominal public sector wage freeze, as well to lower spending on subsidies, capital projects and spending on purchases of goods and services. The fall in consolidated public spending in 2009 exceeds GDP decline, signalling significant savings made in the public sector in the course of the past year. The main savings resulted from *ad hoc* measures, such as the freeze of pensions and wages. Therefore, there is a real threat that when early signals of an end to the crisis emerge, those results could be annulled with a pension and wage hike. The structure of savings made in the past year is excessively disappointing as the biggest decline in spending affected public investments.

During the entire 2009, the consolidated deficit of the state sector stood at 122 billion dinars (around 4.1% of GDP), which is below the deficit target agreed with the IMF (4.5% of GDP)

Table T6-2. Serbia: Consolidated Balance of the General Government sector¹⁾, 2006-2009

	2006		2007		2008				2009			
	Q1-Q4	Q1-Q4	Q1	Q2	Q3	Q4	Q1-Q4	Q1	Q2	Q3	Q4	Q1-Q4
I TOTAL REVENUE	865.8	1,002.0	269.4	281.4	283.3	311.8	1145.9	258.8	267.1	297.0	323.6	1,147
II TOTAL EXPENDITURE	-888.4	-1,031.5	-254.0	-295.8	-286.6	-359.3	-1195.7	-270.3	-306.3	-315.1	-356.2	-1247.9
III "OLD" DEBT REPAYMENT, NET LENDING AND RECAPITALIZATIONS	-10.9	-15.3	-7.3	-5.2	-2.7	-3.9	-19.1	-0.9	-6.3	-5.8	-7.4	-20.4
o/w Net lending ²⁾	-10.9	-15.3	-7.3	-5.2	-2.7	-3.9	-19.1	-0.9	-6.3	-5.8	-7.4	-20.4
IV TOTAL EXPENDITURE, GFS (II+III)	-899.3	-1,046.8	-261.4	-301.0	-289.3	-363.2	-1214.8	-271.2	-312.6	-320.9	-363.6	-1268.3
V CONSOLIDATED BALANCE (I+IV), GFS definition ³⁾	-33.5	-58.2	8.0	-19.6	-5.9	-51.3	-68.9	-12.4	-45.5	-23.9	-40.0	-121.8
VI FINANCING (FREN's definition)	119.6	24.2	7.9	-12.2	0.2	17.5	13.5	28.9	40.2	11.4	86.8	167.3
VII ACCOUNT BALANCE CHANGE (V+VI)	86.2	-34.0	16.0	-31.8	-5.7	-33.8	-55.4	16.4	-5.3	-12.4	46.8	45.4
VIII TOTAL REVENUE/GDP (%)	42.4	41.9	43.5	40.7	40.3	42.7	41.7	38.6	35.9	39.0	40.7	38.6
IX TOTAL EXPENDITURE/GDP (%)	(44.0)	(43.7)	(42.2)	(43.5)	(41.1)	(49.7)	(44.3)	(40.4)	(42.0)	(42.1)	(45.8)	(42.7)
X CONSOLIDATED DEFICIT/GDP (%)	(1.6)	(1.9)	(1.3)	(2.8)	(0.8)	(7.0)	(2.5)	(1.9)	(6.1)	(3.1)	(5.0)	(4.1)

Source: Table P-10 in Analytical Appendix.

1) The General Government – all government levels (the Republic, province, municipalities) and their budget beneficiaries and organizations of mandatory social security (Pension fund, the Republic's Health Fund, the National Labor Office). Excludes public companies and NBS.

2) The item corresponds to term "Spending for the purchase of financial assets" in PFB, i.e. to the item "net lending" in the IMF presentation. Those are credits to students, farmers, loans granted through the Development Fund, repayment of debts to pensioners, and spending on capital increase.

3) The consolidated balance (cash surplus/deficit according to GFS) represents a difference between current revenues and earnings from the sale of non-financial assets (i.e. capital revenues) and current spending and spending on the purchase of non-financial assets (i.e. capital spending). Beside those, spending also includes an item which includes repayment of domestic debts – pensions, budgetary lending and recapitalizations. Thus defined, the resultant measures a liquidity impact of the government transactions on the economy. See methodological discussion in Box 1, Quarterly Monitor No. 3 for detail.

4) Considering a one-off character of revenues raised from the sale of a mobile telephony license, we treated this revenue as financing, unlike the Ministry of Finance, which treated it in its statements as part of current non-tax revenues.

5) FREN estimate based on unofficial information on movements of tax credit claims by companies from the state and on an analysis of the flows of VAT return presented in PFB.

Notes: See Table P-10 in Analytical Appendix for detail.

During the entire 2009, the consolidated deficit of the state sector stood at 122 billion dinars (around 4.1% of GDP), which is below the deficit target agreed with the IMF (4.5% of GDP)

Anti-cyclical fiscal policy in 2009 reduced the declines in economic activity and employment

The total consolidated deficit of the state sector in 2009 reached 122 billion dinars (close to 4.1% of GDP), which is somewhat lower than the deficit target agreed with the IMF (4.5% of GDP). The final deficit size, below the plan, resulted from higher than planned public revenue collection in Q4, as well as lower than planned public spending. The primary fiscal deficit², as a more adequate indicator of fiscal policy expansiveness, stood at 3.3% of GDP in 2009, which is a significant increase compared with the previous year, when the primary fiscal deficit stood at 1.9% of GDP.

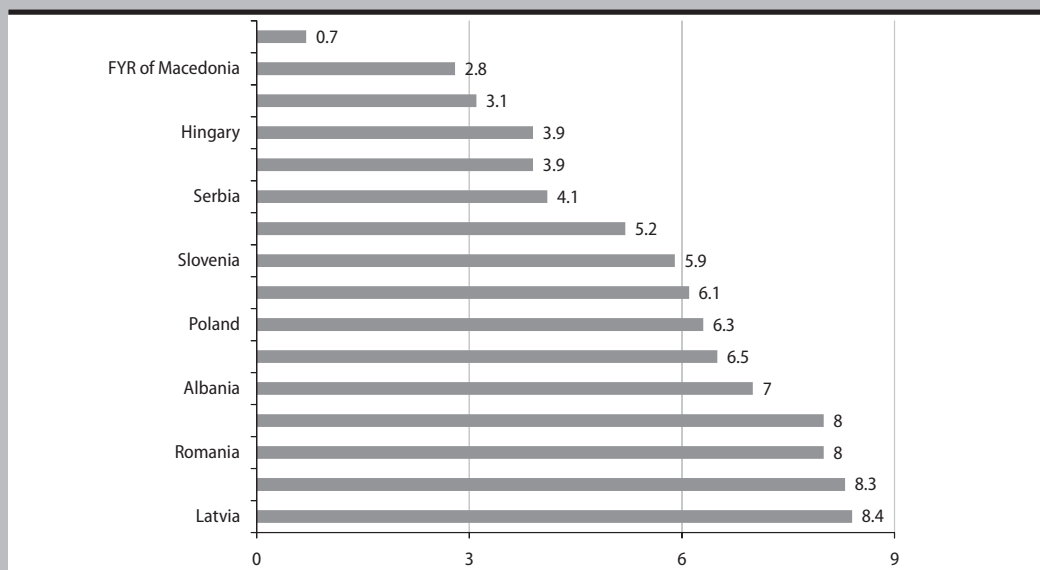
To what extent Serbia's 2009 fiscal policy was anti-cyclical? – is a relevant question. Relatively high consolidated and primary fiscal deficits indicate that the 2009 fiscal policy had made the fall in domestic demand significantly smaller, which in turn made declines in economic activity and employment more moderate. The fact that the majority of the 2009 fiscal deficit was financed through government domestic borrowing, does not weaken a significant positive anti-cyclical impact of the fiscal policy. In a situation of high risks that existed in 2009 – banks were not ready to substantially lend to companies and citizens. Under such circumstances, the government borrowing meant primarily an increase in the total credit activity than crowding out of the private sector from the financial market.

Box 1. Fiscal Deficit in Serbia and Countries of Central and Eastern Europe in 2009

Serbia's macroeconomic performance shares some similarities with countries of Central and Eastern Europe. During pre-crisis years, Serbia and the abovementioned group of countries enjoyed high economic growth, which was mainly based on abundant inflow of cheap foreign capital.

Central and Eastern Europe is one of the regions hit the hardest by the global economic crisis in the course of 2009. Therefore, the comparison of Serbia's fiscal deficit with deficits of other countries in the region is relevant. Compared with 2008, all the countries of the region had significantly increased their fiscal deficits in 2009 mainly due to falling public revenues, i.e. falling GDP and domestic demand. Compared with 16 observed countries, Serbia ranked 11th by the share of its fiscal deficit in GDP in 2009, which means that its fiscal result was better than in most other countries of the region.

Graph T6-3. Fiscal Deficit in 2009 in Countries of Central and Eastern Europe (% of GDP)



Source: Calculations by the author based on figures contained in Unicredit CEE quarterly 1Q 2010.

Figures on revenues and spending of the budget of the Republic of Serbia for January represent an indicator of fiscal trends at the start of 2010. In our assessment, the budget of the Republic

² Primary fiscal deficit is the result of the total fiscal deficit less the interest expenditures.

In January 2010, budget revenues of the Republic rose by 3% in real terms against January, while spending rose 4%, so that the budget deficit stood at 1.5 billion dinars

of Serbia in January 2010 most probably posted better results in the field of public revenues than what was the case with the consolidated state sector. As previously mentioned – the revenue structure of the Republic's budget was dominated by taxes on consumption (VAT, excise duties), which have posted above-average results since mid-2009, while the consolidated state sector shows that the greater reliance on social security contributions and income taxes, which posted a significant decline in Q3.

Data on revenues and spending of the Republic's budget for January 2010 show that budget revenues of the Republic rose by 3% in real terms against the same month last year. The growth resulted mainly from a significant real growth in revenues from VAT and excise duties. Revenues from VAT collected in January 2010 were 5% higher compared with the same month of 2009, while seasonally adjusted revenues from VAT in January 2010 were 11% higher compared with December 2009 at the same time, revenues from excise duties rose by 25% against January 2009 (mostly due to higher excise duties – which were raised three times in the course of 2009 and once in January 2010). Budget spending of the Republic in January rose by 4% in real terms against the same month of 2009, mainly due to a significant real growth of spending on purchases of goods and services by 50%. Such an extremely high (relative) growth of spending on purchases of goods and services was the result of a sharp decline in revenues in January 2009, when a major volume of the spending had been put off for later months of 2009, which is why the comparative base for those spending items was very low. As a result of described developments, the Republic's budget deficit in January 2010 stood at 1.5 billion dinars (while the average monthly budget deficit in 2009 stood at 7.8 billion dinars)³.

An Analysis of Separate Taxes and Public Spendings

Seasonally adjusted real revenues from VAT remain almost unchanged in Q4 against Q3, while revenues from excise duties rose by 4%

Revenues from taxes on spending posted a mild recovery in Q4 2009. Seasonally adjusted real revenues from VAT in Q4 were practically identical to those in Q3 (a 0.1 % decline), which can represent an indicator of stagnating economic activity and domestic demand, following a strong growth in Q3 2009. Real seasonally adjusted revenues from excise duties posted a 4% growth in Q4 against Q3. A further real growth in seasonally adjusted revenues from excise duties against Q3 could have been influenced by higher trade of goods subject to excise duties, a rise in prices of some goods subject to excise duties (because that raises the base to calculate VAT and excise duties), as well as stepped up efforts to collect those public revenues. Seasonally adjusted revenues from customs duties continued to fall in real terms in Q4 against the previous quarter (Q4 decline against Q3 stood at 4.4%), which can be attributed to a further decline in imports.

Table T6-4. Serbia: Seasonally Adjusted Quarterly Indexes of Real Public Revenues (previous quarter = 100)

	Public revenues	Consumption taxes			Production factors taxes		
		VAT	Excise duties	Customs duties	Personal income tax	Social security contributions	Corporate income tax
Q3 2008	96.9	93.2	101.0	93.1	98.3	98.9	95.7
Q4 2008	99.0	95.5	98.2	89.7	102.7	100.0	92.7
Q1 2009	93.7	104.8	102.9	85.8	92.1	97.3	82.9
Q2 2009	96.7	86.5	104.1	89.7	96.1	99.5	87.0
Q3 2009	106.6	108.6	111.5	94.1	100.0	96.4	109.7
Q4 2009	97.7	99.9	104.0	95.6	94.3	94.1	93.3

Source: Calculations by the authors.

...but (real seasonally adjusted) revenues from social security contributions and income taxes significantly fell compared with Q3

Real seasonally adjusted revenues from income taxes and social security contributions posted a significant decline in Q4 (of 5.7% and 5.9% respectively) against Q3, which is, among other reasons, the result of the falling number of employed workers, late payment of wages to those employed due to liquidity problems of companies, and weakening fiscal discipline.

³ As of January 2010, the Finance Ministry publishes figures on budget spending and revenues based on a new methodology (a change in methodology was made to further harmonise it with GFS methodology). Figures on budget revenues and spending, shown according to the new methodology, signal that the January budget deficit of the Republic was around 700 million dinars. But for the sake of comparability with data from the previous year, our analysis of real budget revenues and spending in January 2010 is based on figures shown according to the methodology applied in 2009.

Real seasonally adjusted revenues from the corporate income tax fell in Q4 by 6.7% against Q3. A further decline of those revenues is mainly attributed to liquidity and profitability problems of the economy.

(Real, seasonally adjusted) spending fell by 5.4% in Q4 against Q3, mainly due to fall in spending on subsidies, capital spending and spending on employees...

Real, seasonally adjusted spending on employed workers in Q4 fell by 1.8% against Q3. A further real decline in (seasonally adjusted) spending on employed workers can be attributed mainly to the freeze of nominal wages in the public sector and the fall in the number of employed workers (see Table 3-3, Public Sector Employed 2004-2009).

Real, seasonally adjusted spending on purchases of goods and services in Q4 were 1.1% lower, while spending on subsidies fell by 25.4% against Q3. Such a significant decline in spending on subsidies results partly from the fact that spending on those items rose significantly in Q3, which makes the comparative base for Q4 spending higher.

Table T6-5. Serbia: Seasonally Adjusted Quarterly Indexes of Real Public Spending Levels (previous quarter = 100)

	Public expenditures	Staff expenditures	Purchase of goods and services	Subsidies	Pensions	Capital expenditures
Q2 2008	106.0	104.3	104.4	122.5	105.4	129.0
Q3 2008	92.5	97.7	95.7	56.7	102.6	91.6
Q4 2008	103.8	100.0	100.3	138.3	105.4	94.6
Q1 2009	95.3	94.2	97.5	75.9	101.0	79.9
Q2 2009	102.7	100.9	101.9	98.6	98.7	111.6
Q3 2009	98.9	99.5	93.1	114.0	101.0	92.9
Q4 2009	94.6	98.2	98.9	73.6	99.1	90.5

Source: Calculations by the authors.

Following a continued year-on-year growth in real terms in previous years, real spending on pensions in Q4 2009 fell by 0.3% against the same period of the previous year. Compared with Q3, real seasonally adjusted spending on pensions fell (by 0.9%). The fall in real spending on pensions resulted mostly from the freeze of nominal pensions throughout 2009. Despite the real decline in spending on pensions in 2009, total spending on pensions stood at 13% of GDP in that year, which was 1.1% of GDP higher than in 2008, mainly due to a one-off pension hike in Q4 2008.

In the course of Q4, real, seasonally adjusted capital spending fell by 9.5% against Q3. Real capital spending in Q4 2009 fell (by 22%) also compared with Q4 of the previous year. Capital spending fell in real terms partly due to unfavourable weather conditions in December, but also due to the fact that fiscal adjustment on the spending side of the budget (needed because of revenue decline in 2009) has mainly been achieved through postponement of major capital spending.

Table T6-6. Serbia: Consolidated Balance of the General Government Sector¹⁾, 2006-2009

	2006		2007		2008				2009				12 m				Comparing to									
	Q1-Q4		Q1-Q4		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	previous period									
	2006	2007	2008	2009	2006	2007	2008	2009	2006	2007	2008	2009	2006	2007	2008	2009	Q1-Q4									
in bn. dinars																										
I PUBLIC REVENUES	865.8	1,000.7	269.4	281.4	283.3	311.8	1,145.9	258.8	267.1	297.0	323.6	1,146.5	6.8	8.4	7.6	5.2	2.8	-0.7	3.4	-12.6	-13.7	-4.2	-5.0	-8.7	8.0	
<i>excl. Public revenues excluding VAT facilities to enterprises and other non-SDF²⁾</i>	855.6	995.2	269.4	281.4	283.3	311.8	1,145.9	258.8	267.1	297.0	323.6	1,146.5	8.9	8.7	8.3	6.5	3.3	-0.6	4.0	-12.6	-13.7	-4.2	-5.0	-8.7	8.0	
1. Current revenues	851.5	995.4	268.9	280.3	282.6	311.3	1,143.1	229.8	237.1	266.9	276.5	1,000.3	6.7	7.9	7.7	5.0	3.7	0.1	3.7	-12.6	-13.7	-4.2	-6.3	-6.1	6.6	
Tax revenues	756.0	870.0	236.4	247.4	248.3	276.2	1,000.4	30.9	33.5	33.6	35.5	133.5	5.4	6.0	7.6	5.2	3.6	0.1	3.9	-10.8	-12.9	-5.4	-6.3	-8.8	6.7	
Personal income taxes	118.6	115.8	29.7	34.1	33.6	30.0	136.5	12.8	1.6	6.7	11.2	11.9	8.4	7.1	8.1	4.5	6.5	4.5	6.5	-10.8	-8.7	-16.5	-10.8	4.9		
Corporate income taxes	18.3	29.7	11.0	8.1	7.4	8.5	39.0	69.4	67.9	76.1	83.5	266.9	58.0	52.1	15.2	30.0	46.3	-0.2	18.7	-22.2	-37.2	-25.4	-27.3	-27.0	10.4	
VAT and retail sales tax	223.1	265.5	73.2	77.0	73.8	77.7	301.7	69.4	67.9	76.1	83.5	266.9	-7.3	10.6	8.7	5.7	-0.3	-2.3	2.7	-13.6	-19.9	-5.8	-1.5	-10.2	8.9	
<i>excl. VAT and retail sales tax³⁾</i>	224.5	265.9	72.2	77.0	73.8	77.7	301.7	24.4	20.7	30.4	41.3	134.8	0.2	8.8	11.3	80.9	1.3	-2.1	4.7	-13.6	-19.9	-5.8	-1.5	-10.2	8.9	
Excises	86.9	98.6	23.7	26.6	29.5	30.3	110.1	11.5	11.7	11.7	13.2	48.0	8.3	6.5	5.7	-1.5	-2.4	-1.7	0.9	4.2	4.9	18.8	24.6	13.6	6.7	
Custom duties	43.4	57.4	14.8	16.9	16.3	16.8	64.9	73.4	79.7	80.9	84.8	318.9	3.9	18.6	10.5	8.8	0.9	4.7	2.0	-29.4	-37.4	-34.5	-27.8	-32.4	12.3	
Social contributions	231.4	230.3	60.7	75.9	78.7	86.5	312.7	73.4	79.7	80.9	84.8	318.8	12.5	9.6	6.0	4.4	5.2	2.5	4.5	4.1	-4.5	-6.1	-12.2	-7.0	4.0	
<i>excl. contributions excluding offsets with SDF⁴⁾</i>	221.9	209.8	69.7	75.9	78.7	86.5	312.7	7.4	8.1	10.3	11.4	37.1	17.3	14.7	7.0	4.6	5.2	2.8	4.7	4.1	-4.5	-6.1	-12.2	-7.0	4.0	
Other taxes	39.3	32.8	8.4	8.8	8.8	9.5	35.6	28.5	20.1	39.3	41.9	138.8	11.1	1.7	4.5	-5.8	4.0	-1.6	-2.1	-20.5	-16.8	6.1	10.0	-9.9	9.7	
Non-tax revenues	109.6	125.4	34.4	32.9	34.3	41.1	142.7	0.3	0.5	0.0	0.0	0.0	0.9	12.1	7.4	8.5	3.3	4.5	-2.7	2.8	24.6	-19.5	4.7	6.7	-11.3	5.6
2. Capital revenues	6.3	5.3	0.5	0.3	0.3	0.2	1.4						56.3	1,703.2	55.6	81.3	89.6	87.7	88.8	35.4	-3.2	-89.8	48.4	-4.4	18.9	
II TOTAL EXPENDITURE	888.4	1,031.5	256.0	295.6	286.6	299.3	1,195.7	279.3	286.2	315.1	356.2	1,247.0	12.7	8.0	2.4	20.1	1.8	-1.4	4.7	2.3	-5.9	6.5	4.2	-4.8	12.3	
1. Current expenditures	807.0	819.5	242.0	272.7	265.5	314.4	1,089.6	259.0	266.4	292.0	310.9	1,155.4	10.6	6.9	6.9	19.5	2.3	2.3	7.1	-2.6	-4.6	2.5	7.4	-3.3	8.0	
Wages and salaries	204.4	238.3	66.5	74.0	71.3	81.4	293.2	79.3	-75.6	-73.8	82.2	302.0	7.0	9.4	12.7	10.0	9.2	8.5	11.1	3.8	-7.1	-5.3	-7.5	-6.0	10.5	
Expenditure on goods and services	-125.9	-168.1	-24.0	-44.2	-62.3	-57.9	-191.2	-25.9	-67.2	-62.9	-58.2	-107.4	-12.9	16.1	9.8	8.1	-1.3	-11.4	-2.6	3.8	-2.9	-4.6	8.1	-5.7	24.0	
Interest payments	-30.2	-17.9	-6.0	-2.6	-5.1	-3.4	-17.2	-5.8	-4.5	-7.1	-5.0	-22.4	-52.6	-44.4	-12.2	-31.4	-3.1	-10.6	-13.2	-13.4	55.9	28.8	33.4	19.0	-30.2	
Subsidies	-51.6	-63.7	-13.3	-22.2	-13.9	-28.3	-77.8	-11.0	-14.7	-18.7	-18.6	-63.1	-10.0	7.6	27.5	88.2	-29.7	0.5	19.3	24.7	39.8	22.9	39.8	-26.0	-1.6	
Social transfers	-360.4	-409.3	-115.9	-122.4	-120.4	-136.0	-496.8	-122.8	-128.1	-139.3	-142.2	-556.4	13.7	4.5	6.0	19.0	6.8	8.1	9.7	2.4	3.3	5.7	2.2	2.2	3.4	
<i>excl. pensions⁵⁾</i>	-227.7	-259.8	-74.8	-81.5	-82.6	-91.1	-331.0	-94.5	-96.6	-97.3	-99.2	-387.3	11.7	7.1	8.5	14.9	16.4	20.1	15.1	10.9	7.7	6.1	-0.7	6.7	1.3	
Other current expenditures	-20.5	-22.1	-4.2	-7.3	-4.6	-7.3	-23.5	-3.2	-4.2	-4.9	-4.7	-24.9	2.9	1.1	15.7	62.5	18.9	-20.6	-4.1	30.9	-35.5	15.6	9.6	-6.7	25.8	
Capital expenditures ⁶⁾	-81.3	-112.1	-12.0	-31.1	-36.1	-44.9	-198.0	-11.3	-20.0	-23.0	-38.2	-92.5	57.7	29.3	44.5	28.1	1.2	21.0	-14.5	14.3	-21.3	-19.2	22.0	-20.4	64.6	
III "NET" DEBT REPAYMENT, GOVERNMENT NET LENDING AND RECAPITALIZATIONS	-16.9	-15.3	-4.4	-5.2	-1.2	0.6	-16.1	-0.9	-6.3	-5.8	-7.4	-20.4	47.6	-53.9	346.5	338.0	-83.8	-108.6	-40.3	88.6	10.3	97.1	74.7	-2.4	25.2	
IV TOTAL EXPENDITURE, GFS (P+III)	899.3	1,046.8	256.4	291.0	287.8	318.7	1,205.8	277.2	312.6	320.9	348.6	1,266.3	13.0	9.2	3.8	21.7	0.4	3.3	4.1	-5.8	-5.6	1.4	-8.3	-4.8	12.4	

Source: Table P-10 in Analytical Appendix.

- 1) See footnote 1) in Table T6-2.
 - 2) Sales tax/VAT less new tax credits of the corporate sector.
 - 3) Contributions less compensations conducted between the Pension fund, the Development Fund and companies which owe to PIO Fund.
 - 4) FREN estimate. See table P-10 in Analytical Appendix for explanation.
 - 5) Refers only to spending on current pensions.
 - 6) Capital spending excludes projects financed from foreign sources (except in 2004, See footnote 16 in Table P-10).
 - 7) The item corresponds to term "Spending on the purchase of financial assets" in PFB, i.e. "net lending" item in the IMF presentation. Those are credits to students, financing of the National Corporation for Housing Loan Insurance, recapitalizations, etc.
- Note: To calculate real growth, an average base index of retail prices was implemented (base December 2003) on quarterly figures.

Public Debt Analysis

Serbia's total public debt stood at 9.85 billion euros (31.3% of GDP⁴), which is roughly the same as at the end of Q3.

Even though the total budget deficit of the consolidated state sector stood at around 40 billion dinars (of which 26 billion dinars was created in December alone), that had no significant impact on public debt increase, because the deficit had been financed to a great extent from funds received from the IMF based on an extraordinary additional quota allocation. Also, the debt had been lowered after the World Bank wrote down a part of Serbia's public debt, which had referred to Kosovo and Metohija.

Of the mentioned 9.85 billion euros in public debt, 8.5 billion euros refer to direct liabilities of the state and 1.4 billion to indirect liabilities. Of direct liabilities of the state, 4.1 billion euros represented domestic and 4.4 billion euros external debt. Compared with the end of Q3, domestic direct debt rose by close to 260 million euros (mainly based on a new Treasury bill issue). Namely, at the end of 2009, net liabilities of the state based on issued Treasury bills, stood at 94.9 billion dinars (990 million euros), which was almost 20 billion dinars (roughly 209 million euros) more than at the end of Q3. In the course of Q4, direct external debt fell by around 310 million euros.

Table T6-7. Serbia: Public Debt, 2000-2010

	in billions of EUR								
	31.12.2000.	31.12.2005.	31.12.2006.	31.12.2007.	31.12.2008.	31.03.2009.	31.07.2009.	30.9.2009.	31.12.2009.
I. Total direct debt	14.2	9.6	8.6	8.0	7.9	8.0	8.5	8.5	8.5
Domestic debt	4.1	4.3	3.8	3.4	3.2	3.2	3.7	3.8	4.1
Foreign debt	10.1	5.4	4.7	4.6	4.7	4.8	4.8	4.7	4.4
II. Indirect debt	-	0.66	0.80	0.85	0.93	0.96	1.2	1.4	1.4
III. Total debt (I+II)	14.2	10.3	9.4	8.9	8.78	8.93	9.70	9.87	9.85
Public debt / GDP	169.3%	50.2%	36.2%	29.4%	25.6%	28.9%	31.4% ¹	32.0%	31.3%

Source: Ministry of Finance of the Republic of Serbia.

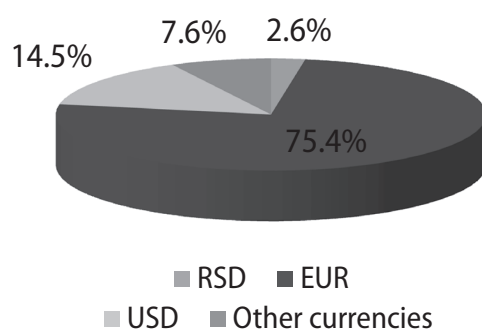
Serbia's public debt at the end of 2009 was by some 1.07 billion euros (i.e. by around 5.7% of GDP) higher compared with the end of 2008. At the same time, the total deficit of the consolidated state sector in 2009 stood at 122 billion dinars (close to 1.3 billion euros). The link between the growth in public debt and the fiscal deficit in 2009 was partly broken by a 550 million dollar debt write-down of Serbia's debt by the World Bank (around 400 million euros or roughly 1.3% of GDP), which refers to Kosovo and Metohija, as well as by the financing of the part of the deficit from the funds received from the IMF based on an extraordinary additional quota allocation.

In the course of 2009, the share of dinar-denominated public debt rose from 2.6% to more than 12%

The structure of the public debt changed significantly in the course of 2009. Due to significant government borrowing in the local market, the share of the dinar-denominated debt in the total debt rose from 2.6% at the end of 2008 to 12.3% at the end of November 2009 (the last available figure on the currency structure of the public debt). For the same reason, the share of domestic debt in the total public debt rose from 36% at the end of 2008 to around 41% at the end of November 2009. The described change in the currency structure of the public debt resulted from the government relying increasingly on borrowing in the local market (through Treasury bill issues) in order to finance the fiscal deficit. The rising share of the dinar-denominated public debt positively affects Serbia's public debt sustainability, because the dinar-denominated debt is not directly exposed to an exchange rate risk.

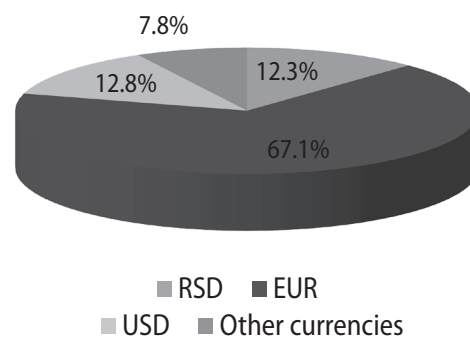
⁴ According to the Ministry of Finance calculations.

Graph T6-8. Serbia: the Currency Structure of the Public Debt as of 31.12.2008



Source: Calculations by the author.

Graph T6-9. Serbia: the Currency Structure of the Public Debt as of 30.11.2009



Source: Calculations by the author.

Despite public debt expansion in 2009, Serbia still ranks among countries with moderate public debt levels. Serbia's public debt in the coming period is expected to grow significantly based on further government borrowing, mainly to finance infrastructure projects, from the government potentially assuming liabilities based on denationalisation and making implicit guarantees for public enterprises' borrowing. The public debt sustainability will largely depend on GDP movements and the real exchange rate of the dinar. Therefore, we recommend more stringent approach related to decisions on additional government borrowing in the next few years.

7. Monetary Flows and Policy

In the course of the fourth quarter (Q4), M2 rose significantly by 9.8 percent year-on-year in real terms. During the same period, lending to non-government sector posted a negative year-on-year growth rate of -0.5 percent. Following a slight decline in Q3 (with a share of 11.2%) the share of non-performing loans fell further in Q4 to 10.8 percent with the declining trend extending into January. In the course of Q4, a recovery in credit activity of the domestic banking sector was noticeable, with an increased lending to both corporate and retail sectors, by 488 million euros. Sources of lending in the course of Q4 were private foreign exchange deposits, and to a lesser extent foreign exchange deposits of companies, totaling 942 million euros. Just like in Q3, banks continue to increase borrowing abroad by another 713 million euros, which marks a return to old, once-dominant source of new lending. REPO purchases in Q4 were negative (-70 million euros), mainly due to a drastic seasonal decline in December. Because of that, the cut in the NBS benchmark interest rate by 2.5 percentage points in the course of Q4 had no direct impact on lower REPO purchases, which is confirmed by renewed growth in REPO purchases in January 2010. The volume of reserve money for the first time since the start of the year posted growth of 8.7% of initial H. This growth took place only in December as banks pulled out from REPO purchases. Net own reserves of the NBS rose by 349 million euros in the course of Q4 even though the NBS intervened to stabilize daily swings of the dinar exchange rate. In December, in two spot auctions, NBS sold 100.5 million euros, while in January and February it spent 441 million euros from its foreign exchange reserves in interbank forex market.

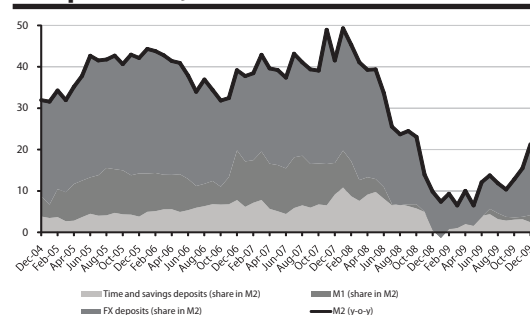
Monetary System: Money Supply Structure and Flows

High year-on-year growth of real M2 in Q4

In the course of Q4, M2 rose significantly year-on-year, by 9.8% (in Q3 growth was 0.9%, Table T7-2). Lending to non-government sector in Q4 posted a real decline of -0.5%¹ (in Q3 -2.8%). Of total lending, loans to households continue a trend of year-on-year decline in real terms, which had taken place since the start of the year, and which stood at -6.4% in Q4. In the same period, following its decline (-1.3% in Q3), lending to the corporate sector in Q4 posts real growth of 2.5% year-on-year.

Looking at contributions by individual elements in M2 structure (Graph T7-1), it can be seen that following a negative contribution to growth established since December 2008, M1 again begins to produce a positive impact on M2 growth, which in Q4 stood at 1.75% (0.92% in Q3). Similar to previous quarters, hard currency deposits have the major contribution to M2 growth, which peaked in Q4 and stood at 17.11%. This high positive contribution of hard currency deposits is partly owed to a pronounced expansion of hard currency savings during the Savings Week (Savings Month), during which hard currency savings rose by 495 million euros². Savings and time deposits had contributed to M2 growth of 2.42%, which represents a slight decline compared with Q2 (3.97%) and Q3 (2.83%).

Graph T7-1. Serbia: Money and its Components¹, 2004-09



Source: Table P-12 in Analytical Appendix.

1) The share of money components has been calculated as their contribution to growth against the value of M2 versus the same period in the previous year, with the sum of calculated share equivalent to 12-month growth of total money (M2).

In the course of Q4 money supply growth stood at 11.8%...

Money supply growth in Q4 stood at 11.8% of M2 at the start of the year (cumulative growth in Q4 minus growth in Q3, Table T7-2). In contrast to Q3, when growth in Net Foreign Assets

¹ Under our methodology for growth rate adjustment, we assume that at least 70% of those loans had been exchange rate-linked.

² Maturities of savings deposits has significantly improved, since the share of sight deposits has declined, while the share of time deposits, mainly six-month and one year maturities, has grown to 41.4%, which speaks of a strengthened confidence in banks.

...based on joint positive NFA and NDA contribution to growth

(NFA) was the sole contributor to money supply growth, growth in net domestic assets (NDA) had a positive impact on money supply growth in Q4 of 6.4% of M2 at the start of the year (in Q3 it posted a 0.5% decline of M2 at the start of the year). NFA in Q4 contributed to money supply growth with 5.3% of M2 at the start of the year, representing the highest NFA growth in 2009 (in Q1 2.2%, in Q2 -1.8%, in Q3 3.2%). NDA growth resulted from expanding credit to non-government sector by 3.3%. A negative contribution to NDA growth came from a 0.9% decline in net lending to the state in Q4, while a capital increase in the monetary sector, which continued its downward trend since the start of the year and stood at -3.8% in Q4, had an impact on the final NDA.

Table T7-2. Serbia: Money and Component Aggregates, 2006-2009

	2007				2008				2009			
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
	y-o-y, in%											
M2 ¹⁾	42.9	37.4	39.4	41.5	41.0	33.7	24.5	9.8	6.5	12.1	10.4	21.3
Credit to the non-government sector ²⁾	21.6	23.9	28.0	38.3	36.4	30.3	29.4	33.7	33.8	27.7	22.3	16.1
Credit to the non-government sector ²⁾ , adjusted ³⁾	26.3	30.2	31.2	38.4	35.3	30.7	32.2	23.6	20.9	13.9	7.7	10.2
Households	58.4	54.7	53.6	50.6	43.3	35.5	19.5	15.7	7.4	1.5	4.4	3.7
Enterprises	14.2	20.2	21.1	32.2	31.0	28.1	39.5	28.1	28.8	20.9	9.3	13.6
	real y-o-y, in %											
M2 ¹⁾	35.3	30.7	29.7	28.6	26.2	19.2	12.2	2.9	-3.2	2.1	0.9	9.8
Credit to the non-government sector ²⁾	15.2	17.8	19.1	25.6	22.0	16.2	16.6	25.2	21.7	16.4	11.8	5.2
Credit to the non-government sector ²⁾ , adjusted ³⁾	19.8	24.1	22.2	25.6	21.1	16.4	19.0	15.7	9.4	2.7	-2.8	-0.5
Households	50.1	47.4	43.1	36.7	28.2	20.7	7.6	8.3	-2.8	-8.6	-5.8	-0.5
Enterprises	8.3	14.5	12.8	20.1	17.3	14.1	25.6	19.9	16.5	9.0	-1.3	-6.4
	cumulative, in % of opening M2⁴⁾											
M2 ¹⁾	5.9	11.0	23.9	41.5	5.5	4.8	9.0	9.8	2.3	7.0	9.5	
M2 dinar ⁵⁾	-0.1	0.8	6.8	16.8	-2.5	-2.7	-1.1	0.5	-1.9	0.6	2.2	21.3
Foreign deposits (households and enterprises) ⁶⁾	4.0	10.1	17.3	24.5	5.6	7.7	12.5	2.3	-0.1	2.9	4.1	4.2
Valuation adjustments ⁶⁾	1.9	0.0	-0.1	0.2	2.4	-0.2	-2.3	7.0	4.4	3.4	3.2	11.2
NFA, dinar increase	5.2	12.0	14.5	24.4	3.6	-3.2	-3.0	-8.8	2.2	0.4	3.6	
NFA, fx increase	3.1	12.0	14.7	24.2	1.2	-3.0	-1.0	-14.5	-1.1	-2.1	1.1	8.9
Valuation adjustments ⁶⁾	2.2	0.0	-0.1	0.3	2.5	-0.2	-2.0	5.7	3.3	2.5	2.5	4.5
NDA	0.6	-1.1	9.4	17.1	1.9	8.0	12.0	18.7	0.2	6.6	6.0	
o/w: credit to the non-government sector ²⁾ , adjusted ³⁾	6.6	19.6	28.3	36.6	4.8	12.8	22.2	22.0	3.6	5.1	8.3	12.4
o/w: net credit to government ⁷⁾	-4.1	-7.7	-7.0	-1.9	-0.6	1.0	1.9	7.0	-2.0	4.1	6.1	11.6
o/w: NBS and com. banks capital and reserves	-2.2	-7.4	-11.6	-17.9	-3.5	-4.6	-6.3	-16.4	0.7	-5.5	-9.9	5.2
	cumulative, in % of GDP⁸⁾											
Net credit to government ⁷⁾	-1.3	-2.1	-1.9	-0.5	-0.3	0.3	0.7	2.2	-0.9	1.4	2.1	1.7
o/w: dinar credits	-1.2	-2.3	-2.1	-1.1	-0.8	-1.3	-1.0	0.8	-0.5	1.7	2.4	1.7
Credit to the non-government sector ²⁾ , adjusted ³⁾	2.6	5.4	7.7	9.8	2.7	4.4	6.6	10.7	3.4	3.5	4.3	6.4

Source: Table P-12 in Analytical Appendix.

1) Money supply: components – see QM Analytical and Notation Conventions.

2) Credits to non-state sector – credits to the corporate sector (including local governments) and households.

3) Flows have been adjusted for the exchange rate change. Adjustments have been made under assumption that 70 % of credits to non-state sector (both households and the corporate sector) have been euro-indexed.

4) The starting M2 marks the M2 stock at the start of the year, i.e. at the end of the previous year.

5) The contribution of hard currency deposits to M2 growth measures only the contribution of an increase in hard currency denominated hard currency deposits so that their revaluation produces exchange rate differentials.

6) Exchange rate differentials refer to a difference between the contribution of NFA to M2 growth measured in dinars and the contribution of NFA to M2 measured in hard currencies.

7) Credits to the state: net – the difference between credits (dinar and hard currency) and deposits (dinars and hard currency) of the state. The state does not include local governments, which are treated as non-state sector.

8) GDP used in calculations is annually centred.

The decline in non-performing loans continues...

...falling to 10.8% in Q4

The share of non-performing loans, as percentage of total extended loans, which we follow since the start of the year, fell at the end of Q4 to 10.8% (in Q2 it stood at 12.1%, in Q3 at 11.2%, Table T7-3). Data issued by the Credit Bureau for January 2010, show a further decline in the share of non-performing loans against the total credit portfolio to 9.89%, with the ratio falling below the 10% threshold³. The money multiplier of 1.7 in Q4, is in line with values of this indicator since the start of the year (in Q1 at 1.4; in Q2 at 1.6; in Q3 at 1.8; Table T7-4).

Table T7-3. Serbia: the Share of Non-performing Loans in Total Loans of 2009

	2009			
	Mar	Jun	Sep	Dec
	balance at the end of period			
Corporate	11.05	14.86	13.24	12.14
Entrepreneurs	5.28	8.93	10.21	11.21
Natural persons	5.36	6.19	6.63	6.69
Total	9.1	12.1	11.2	10.8

Source: Association of Serbian banks - Credit Bureau

Since the outset of the economic crisis in Serbia towards the end of the last year, the value of the multiplier had fallen mainly due to high domestic banks' investments in REPOs and Treasury Bills issued by the Ministry of Finance as well as because of weaker lending to the corporate sector.

³ The 10% barrier has been taken as an approximate figure, as a level beyond which a risk to banking sector stability becomes significant due to accumulation of non-performing loans beyond banks' own capital.

7. Monetary Flows and Policy

Table T7-4. Serbia: Monetary Review, 2006-2009

	2007				2008				2009			
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
STOCK	in millions of dinars, end of period											
NFA	441,048	484,388	500,302	563,524	596,215	534,403	536,102	483,707	504,072	486,784	517,908	570,534
o/w: NBS gross reserves	719,381	730,668	751,920	765,615	788,296	720,967	745,070	724,755	772,902	832,817	888,389	1,022,861
o/w: commercial bank foreign liabilities	-318,598	-286,848	-290,860	-299,659	-264,865	-251,182	-279,131	-349,703	-345,733	-351,420	-419,017	-500,336
NDA	234,991	224,279	291,193	340,174	357,307	412,802	448,498	508,826	511,535	575,119	569,336	633,447
Net credit to government ¹⁾	-128,909	-149,081	-144,385	-112,290	-120,644	-103,539	-94,156	-53,042	-76,033	-14,887	4,838	-4,340
Net dinar credit	-35,782	-62,290	-56,369	-34,251	-53,126	-67,826	-60,934	-14,199	-27,201	31,692	52,467	33,822
Net fx credit	-93,127	-86,791	-88,016	-78,039	-67,518	-35,713	-33,222	-38,843	-48,832	-46,579	-47,629	-38,162
Credit to the non-government sector ²⁾	666,007	732,402	786,873	842,512	908,598	953,977	1,018,307	1,126,111	1,215,843	1,218,702	1,245,735	1,306,224
Other items, net	-302,107	-359,042	-351,295	-390,048	-430,647	-437,636	-475,653	-564,243	-628,275	-628,696	-681,237	-668,437
M2 ³⁾	676,039	708,667	791,495	903,698	953,522	947,205	985,134	992,533	1,015,607	1,061,903	1,087,244	1,203,981
M2 dinar ³⁾	282,299	288,329	326,341	390,307	367,648	365,834	380,015	395,088	378,094	401,120	416,996	436,784
Fx deposits (households and economy)	393,740	420,338	465,154	513,391	585,874	581,371	605,119	597,445	637,513	660,783	670,248	767,197
STRUCTURAL INDICATORS												
Currency outside banks/Dinar deposits (households and economy), in %	26.2	29.1	25.1	24.6	23.7	23.5	23.2	29.5	26.0	25.3	24.8	28.0
Fx deposits (households and economy) / M2 (%)	58.2	59.3	58.8	56.8	61.4	61.4	61.4	60.2	62.8	62.2	61.6	63.7
Velocity (GDP ⁴⁾ / M2)	3.3	3.2	2.9	2.6	2.6	2.7	2.7	2.7	2.6	2.5	2.6	2.4
M2 / GDP ⁴⁾	0.31	0.3	0.3	0.38	0.39	0.37	0.37	0.38	0.4	0.4	0.4	0.4
Credits to the non-government sector / GDP ⁴⁾	0.30	0.32	0.34	0.35	0.37	0.37	0.38	0.43	0.5	0.5	0.4	0.5
Non-performing loans ⁵⁾ (in % of total loans)	4.9	4.69	5.20	5.1	4.4	5.3	6.0	5.8	9.1	12.1	11.2	10.8
Money multiplier (dinar M2/H)	2.4	2.0	2.3	2.3	2.6	2.0	2.3	1.2	1.4	1.6	1.8	1.7

Source: Table P-13 in Analytical Appendix.

1) See footnote 7) in table T7-2.

2) See footnote 2) in table T7-2.

3) Money supply: components – see QM Analytical and Notation Conventions.

4) See footnote 8) in table T7-2.

5) The ratio of credits with permanent overdue payments of 90 days or more to total credits. Source for the figure is the Credit Bureau of the Serbian Bank Association; see more detail in J.Dimitrijevic "Non-performing loans in Serbia – What is the right measure?", QM6.

Table T7-5. Serbia: Banking Sector Activity – Sources and Structure of Lending, Adjusted¹⁾ Flows, 2006-2009

	2007				2008				2009			
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
	in millions of euros, cumulative from the beginning of the year											
Funding(-, increase in liabilities)	-325	-1,061	-2,574	-4,582	258	-717	-2,140	-833	958	61	-1,171	-2,790
Domestic deposits	-339	-757	-1,819	-3,254	-162	-464	-1,134	-95	235	-336	-691	-1,633
Households deposits	-329	-652	-1,059	-1,652	-192	-518	-842	84	-40	-270	-551	-1,314
dinar deposits	-35	-57	-97	-135	-18	-19	-28	-63	46	-2	-30	-89
fx deposits	-295	-595	-963	-1,518	-174	-499	-813	147	-87	-268	-521	-1,225
Enterprise deposits	-10	-105	-760	-1,602	29	54	-292	-180	276	-67	-140	-319
dinar deposits	23	112	-324	-1,138	365	394	261	198	171	5	-174	-284
fx deposits	-33	-218	-437	-464	-336	-340	-554	-378	105	-72	34	-35
Foreign liabilities	-10	266	207	114	564	601	138	-165	299	186	-558	-1,271
Capital and reserves	25	-569	-962	-1,441	-144	-855	-1,144	-572	424	212	78	114
Gross foreign reserves(-, decline in assets)	-14	5	-17	695	-333	-386	-316	-18	-407	-449	-5	311
Credits and Investment¹⁾	687	1,294	2,488	3,626	697	1,175	2,888	700	156	1,057	1,980	2,844
Credit to the non-government sector, total	575	1,508	2,315	2,945	614	1,402	2,595	2,022	226	381	696	1,183
Enterprises	313	865	1,271	1,660	406	915	2,099	1,574	331	465	700	1,097
Households	263	644	1,044	1,285	207	487	496	448	-104	-84	-4	86
Placements with NBS (Repo transactions and treasury bills)	200	-11	438	849	116	-126	361	-1,419	40	256	694	625
Government, net ²⁾	-89	-203	-264	-168	-33	-101	-68	98	-110	421	590	1,036
MEMORANDUM ITEMS												
Required reserves and deposits	-146	242	349	441	-369	-275	-97	-225	-191	-225	-185	36
Other net claims on NBS ³⁾	13	-44	-104	-44	6	246	28	422	-385	-380	-481	-158
o/w: Excess reserves	20	-56	-103	-92	0	207	-13	443	-409	-394	-501	-177
Other items ⁴⁾	-110	-464	-57	-78	-202	-192	-490	-330	-166	-158	-254	-99
Effective required reserves (in %) ⁵⁾	34	37	34	31	30	29	28	30	30	28	26	25

Source: Table P-14 in Analytical Appendix.

1) As of this issue, the methodology for the calculation of the increase in lending has been changed because data on distribution of credits by maturities is no longer available. We still maintain the assumption that 70 percent of the total lending is euro-indexed. The increase for original dinar values of deposits was calculated based on the average exchange rate for the period, for hard currency deposits – as a difference in balance, calculated at the end-of-period exchange rate. Capital and reserves were calculated at the end-of-period exchange rate of the euro and exclude exchange rate differentials that would have emerged from new calculations of all other items.

2) NBS securities include treasury bills and NBS bills that sell at the repo rate and at the rate set by the market in auctions of maturities exceeding 14 days.

3) Net credits to the state: credits granted to the state less the state deposits held with commercial banks; a negative prefix means a higher increase in deposits over credits. The state includes all levels of the government: the Republic and local governments.

4) Other NBS claims (net): the balance between commercial bank claims against the NBS based on cash and disposable reserves, and their liabilities towards NBS.

5) Commercial banks' balance sheet items: other assets, deposits of legal entities undergoing receivership, interbank relations (net) and other liabilities excluding capital and reserves.

6) Effective reserve requirements represent the share of mandatory reserves and deposits in the total of deposits (households, corporate) and banks' borrowing abroad. The base to calculate the reserve requirements excludes subordinated debt, due to unavailability.

Banking Sector: Lending and Sources of Financing

- Banks continue to boost lending in Q4...** The banking sector increased lending to the corporate and household sectors by 487 million euros (in Q3 by 315 million euros, Table T7-5, Table T7-6). Around 398 million euros worth of new credits was approved for the corporate sector (in Q3 the lending stood at 235 million euros), while lending to households stood at 90 million euros (in Q3 at 80 million euros). With Q4 lending, the total value of new loans granted in 2009 (at a cumulative 1.097 billion euros since the start of the year), was equivalent to a semi-annual credit growth in 2008 (in H1 2008 it stood at 915 million euros), but still significantly below full-year growth of 2,213 million euros in 2008. Lending to households this year (cumulative since the start of the year at 86 million euros), following debt repayments at the start of the year (in Q1 at -104 million euros) is noticeably below the previous year's levels (lending in 2008 at 498 million euros). In the course of Q4, lending to the state significantly rose by additional 446 million euros (in Q3 by 169 million euros), with half that growth (202 million euros) taking place in December alone. Despite the continued trend of debt repayments by the corporate sector to foreign creditors worth 159 million euros (in the first three quarters 555 million euros) – the total credit growth to corporate and household clients was positive at 329 million euros, mainly due to a noticeable increase in domestic credits in Q4. This amount is significantly below the level for the first three quarters of 2008, but shows signs of improvement since the start of 2009.
- ...mostly based on new credits to the corporate sector...**
- ...and higher net lending to the state**
- In the course of Q4 banks withdraw funds from REPOs...** In the course of Q4, banks pulled out 70 million euros from REPOs (in Q3 they invested 440 million euros, Table T7-5). This move by the banks, however, did not result from NBS' cuts of the benchmark interest rate (in October 11%, November 10%, December 9.5%). Despite the NBS' move, banks invested 272 million euros in REPO purchases, but pulled out 341 million euros in December. The December pull-out was seasonal due to increased needs of the banking sector for liquid assets, the proof of which arrived in January already, when banks renewed REPO purchases, investing additional 172 million euros. Beside this negligible change in REPO purchases, Q4 included – more than 1.5 billion euros had been drained from the banking sector together with Treasury Bills issued by the Finance Ministry⁴ (961 million euros since the start of the year). During Q4, banks lowered their own capital by 36 million euros, unlike the previous two quarters when their own capital rose (by 212 million euros in Q2 and by 134 million euros in Q3).
- ...only due to seasonal decline in December...**
- ...which is short-lived**
- Sources for new bank lending continue to expand in Q4...** Bank sector liquidity growth, due to an expansion of sources for new lending, continued in Q4, amounting to 1,619 million euros (in Q3 the growth in sources was 1,232 million euros, Table T7-5). The contribution of corporate deposits to the total growth stood at 179 million euros (in Q3 it stood at 73 million euros), while a significant growth was noticed in household deposits of 763 million euros⁵ (In Q3 it stood at 281 million euros), of which more than 90% is owed to an increase in hard currency deposits. Similar to the previous quarter, banks bring back money to the mandatory reserve and deposit accounts, which stood at 221 million euros in Q4. In the course of Q4, banks continued to borrow abroad, taking new 713 million euros (in Q3 their borrowing grew by 744 million euros), which signals that banks are again turning to foreign markets as one of their key sources for lending.
- ...due to significant growth in household deposits...**
- ...and bank borrowing abroad...**

⁴ The section "Fiscal Flows and Policy" looks into the status of net state liabilities based on issued Treasury Bills and the nominal value of those Treasury Bills, while the section "Monetary Flows and Policy" looks into the market value of those Treasury Bills on the auction day.

⁵ Foreign exchange savings at the end of November, the so-called "Savings Month", stood at 5,868.4 million euros, exceeding the volume in September 2008, offsetting capital flight in the course of last quarter of the previous year. As at December 31, hard currency savings stood at 6,014 billion euros, with the main increase, of 640 million euros, taking place in November and December.

Table T7-6. Serbia: Borrowing of Companies and Households – the Impact on Aggregate Demand

	2007				2008				2009			
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
quarterly growth of stock, in millions of euros												
Total loans to enterprises and households from domestic banking sector and direct foreign borrowing by enterprises	1,053	2,157	1,537	1,542	1,333	1,624	2,174	468	82	-10	71	329
Loans to enterprises and households from domestic banking sector	575	933	807	630	614	789	1,157	152	226	158	315	488
Loans to enterprises	313	552	406	389	406	509	1,162	135	331	138	235	398
Loans to households	263	381	400	241	207	280	-6	17	-104	20	80	90
Direct foreign liabilities of enterprises	478	1,224	730	912	719	835	1,017	316	-144	-167	-244	-159
Direct foreign liabilities of enterprises and banks' credits to enterprises from domestic banking sector	791	1,776	1,137	1,301	1,125	1,344	2,179	451	187	114	158	239
quarterly growth of stock, in % of quarterly GDP												
Total loans to enterprises and households from domestic banking sector and direct foreign borrowing by enterprises	16.3	30.1	20.0	18.0	17.4	18.3	23.8	5.5	1.2	-0.1	1.0	3.9
Loans to enterprises and households from domestic banking sector	8.9	13.0	10.5	7.4	8.0	8.9	12.7	1.8	3.3	2.3	4.6	5.8
Loans to enterprises	4.8	7.7	5.3	4.5	5.3	5.7	12.7	1.6	4.8	2.0	3.4	4.7
Loans to households	4.1	5.3	5.2	2.8	2.7	3.1	-0.1	0.2	-1.5	0.3	1.2	1.1
Direct foreign liabilities of enterprises	7.4	17.0 ²⁾	9.5	10.7	9.4	9.4	11.1	3.7	-2.1	-2.4	-3.6	-1.9
Direct foreign liabilities of enterprises and banks' credits to enterprises from domestic banking sector	12.3	24.8	14.8	15.2	14.7	15.1	23.9	5.3	2.7	1.7	2.3	2.8

Source: FREN.

1) See footnote 1 in table T7-5.

2) Of which 9.1% of GDP refers to one credit to Telekom for the purchase of Telekom Srpske.

The credit to GDP ratio continues to rise...

...due to greater lending to the corporate sector in Q4

Lending to the corporate sector as percentage of GDP rose to 67% in Q4 (Table T7-7). The declining trend for the credit-to-GDP ratio, noticed since the start of the year (in Q1 at 70.2%, in Q2 at 67.6%, in Q3 at 65.8%) has been broken mainly due to a negative inflow of *cross-border* credits in the course of the year, but mostly due to higher corporate borrowing from domestic banks in Q4 against previous quarters, while the change partially resulted from the dinar depreciation that took place in the monitored quarter.

Table T7-7. Serbia: The Ratio of Outstanding Credit Stock to Companies and Households to GDP

	2007				2008				2009			
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
Total loans to enterprises and households from domestic banking sector and direct foreign borrowing by enterprises	48.2	52.5	55.5	60.0	65.3	66.3	70.2	80.6	84.9	81.9	80.1	81.7
Loans to enterprises and households from domestic banking sector	29.5	31.7	33.0	34.4	36.7	36.9	38.5	42.0	44.5	43.8	43.9	45.1
Loans to enterprises	19.0	20.3	20.6	21.6	23.0	23.4	25.7	27.6	29.8	29.5	29.7	30.5
Loans to households	10.5	11.3	12.3	12.8	13.7	13.5	12.8	14.5	14.7	14.3	14.2	14.7
Direct foreign liabilities of enterprises	18.7	20.8	22.6	25.6	28.7	29.4	31.7	38.6	40.5	38.1	36.2	36.6
Direct foreign liabilities of enterprises and banks' credits to enterprises from domestic banking sector	37.7	41.2	43.2	47.1	51.7	52.8	57.4	66.2	70.2	67.6	65.8	67.0

Source: FREN.

The Central Bank: Balances and Monetary Policy

In the course of Q4 reserve money grows...

...representing a change in trend seen since the start of the year...

...mainly because of December NDA growth

Reserve money in Q4 posted an 8.7% growth of initial H, unlike the first three quarters (in Q1 it fell by 15.8%, in Q2 it fell by 5.7% and in Q3 it fell by 7.4%, Table T7-8). The reserve money expansion took place mainly in December, with a 16% growth of initial H, while in the first two months of Q4 it posted decline by 10.3% of initial H, which is consistent with developments throughout the year. The reserve money growth was mainly caused by NDA increase, which was at 18.3% of initial H in Q4 (again an increase in October and November and than strong growth), which had offset a fall of 9.6% of initial H in NBS net own reserves in Q4. NDA rose mainly on the back of lower REPO purchases by banks in December, an increase in other net domestic assets by 29.4% of initial H, while dinar deposits by the state rose by 14% of initial H, but without any significant impact on NDA decline.

Table T7-8. Serbia: NBS – Currency Purchases and Sterilization, 2006-2009

	2007				2008				2009			
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
FLOW	in millions of dinars, cumulative from the beginning of the year											
NBS own reserves ²⁾	15,066	46,140	60,267	97,636	4,695	19,115	56,373	27,211	-5,590	-12,043	29,771	64,094
NBS own reserves (in euros)	188	577	756	1,218	58	237	706	312	-59	-128	319	668
NDA	-46,278	-57,938	-72,100	-72,440	-39,752	-13,347	-66,941	122,232	43,117	-54,266	-118,637	-126,108
Government, dinar credits	-710	-735	-735	-5,639	267	618	0	81	-308	-310	-310	398
Government, dinar deposits	-30,939	-56,748	-44,985	-10,107	-28,386	-41,088	-36,706	8,638	-17,155	-8,376	3,021	-40,135
o/w: municipalities	-6,768	-13,485	-11,933	-516	-8,329	-7,405	-5,073	-909	-4,415	-2,026	2,199	3,130
Repo transactions ³⁾	-16,675	-2,094	-34,961	-67,950	-11,243	8,014	-28,597	127,517	-8,455	-29,024	-69,849	-61,506
Other items, net ⁴⁾	2,046	1,639	8,581	11,256	-390	19,109	-1,638	-14,004	-17,199	-16,556	-51,499	-24,865
H	-31,212	-11,798	-11,833	25,196	-35,057	5,768	-10,568	149,443	-48,707	-66,309	-88,866	-62,014
o/w: currency in circulation	-9,792	-3,395	-3,088	8,488	-6,613	-7,454	-5,388	13,007	-11,856	-9,009	-7,193	5,566
o/w: excess liquidity	-13,061	-3,309	-6,293	20,605	-39,840	-22,293	-39,483	1,602	41,330	-41,578	-51,043	-14,227
INCREASE	cumulative, in % of opening H⁵⁾											
NBS own reserves ²⁾	11.2	34.5	45.0	72.9	3.5	14.3	42.1	20.3	-1.8	-3.9	9.6	20.8
NDA	-34.6	-43.3	-53.8	-54.1	-29.7	-10.0	-50.0	91.3	-14.0	-17.6	-38.4	-40.9
Government, dinar deposits	-23.1	-42.4	-33.6	-7.5	-21.2	-30.7	-27.4	6.4	-5.6	-2.7	1.0	-13.0
Repo transactions ³⁾	-12.5	-1.6	-26.1	-50.7	-8.4	6.0	-21.4	95.2	-2.7	-9.4	-22.6	-19.9
Other items, net ⁴⁾	1.5	1.2	6.4	8.4	-0.3	14.3	-1.2	-10.5	-5.6	-5.4	-16.7	-8.1
H	-23.3	-8.8	-8.8	18.8	-26.2	4.3	-7.9	111.6	-15.8	-21.5	-28.8	-20.1
o/w: currency in circulation	-7.3	-2.5	-2.3	6.3	-4.9	-5.6	-4.0	9.7	-3.8	-2.9	-2.3	1.8
o/w: excess liquidity	-9.8	-2.5	-4.7	15.4	-29.7	-16.6	-29.5	1.2	-13.4	-13.5	-16.5	-16.5

Source: Table P-14 in Analytical Appendix.

1) "State" includes all levels of governments: the Republic and local governments.

2) The definition of net own reserves of NBS has been given in section 8 "Monetary Flows and Policy", Box 4, QM5.

3) This category includes NBS bills and repo operations.

4) Other net domestic assets include: domestic credits (net claims against banks, excluding NBS bills and repo transactions, net claims against companies) together with other assets (capital and reserves; and items in the balance: other assets and other liabilities), adjusted for exchange rate differentials.

5) "Initial H" marks the stock of the reserve money (H) at the start of the stated year, i.e. the end of the previous year.

Table T7-9. Banks' Reserve Requirement Levels with the NBS, March 2006-March 2009

	12/2004	05/2005	07/2005	10/2005	11/2005	03/2006	04/2006	05/2006	11/2006	12/2006	10/2007	10/2008	12/2008	03/2010
Rate on:														
DINAR DENOMINATED BASE	21	20	20	18	18	18	18	18	15	10	10	10	10	5
more than 1 month dinar time deposits											5	5	5	
non-resident accounts with maturity up to 2 years:								60	60					
non-resident accounts with maturity over 2 years:								40	40					
FX DENOMINATED BASE	21	26	29	35	38	40	40	40	40	45	45	45	45	25
thereof:														
new external bank borrowings after septmeber 2006 ⁶⁾													0	
NEW FX SAVINGS DEPOSITS ⁷⁾	47	47	45	41	38	40	40	40	40	40	40	40	40	25
SUBORDINATED CAPITAL						20	20	20	20	20	20	20	20	
thereof:														
new external bank borrowings after septmeber 2006 ⁶⁾													0	

Source: NBS.

1) Applied to an average daily book value of the base in the last calendar month, and effective as of 17th of the next month. A bank is obliged to maintain an average daily reserve balance at the level of calculated reserves.

2) Until April 2006 and since December 2006, banks' borrowing abroad was treated equally regardless of maturities. Therefore, this sub-category has no values as at March 2006 and since December 2006, i.e. a single hard currency base is implemented on all inflows from abroad based on commercial banks' borrowing.

3) According to valid regulations until December 2005, commercial banks' liability to set aside funds with the NBS based on collected new hard currency savings deposited by households (savings accounts deposited after June 30, 2001) – were regulated by a separate NBS decision. The regulation became unique from the moment of equalization of the mandatory reserve rate on all hard currency assets of commercial banks.

4) Since October 2008, new banks' borrowing abroad has been exempt from the reserve requirements until the expiry of the borrowing, while previous mandatory reserve rates apply for old borrowing.

5) As of December 17, 2008, the base to calculate the reserve requirement is the volume of liabilities as at September 30, 2008 and the rule will be implemented between December 17, 2008 and January 17, 2010.

6) Since May 17, 2008, 10% of the calculated hard currency reserves is held in dinars; since November 17, 2008 20 percent of the calculated hard currency reserves is held in dinars and since December 17, 2008 40 percent of the calculated hard currency reserves is held in dinars.

7) As of March 18, 2010 new NBS regulation on change of mandatory hard and dinar currency reserve is in use according to which the rates will be decreased gradually until February 2011 when it will be fully implemented.

Notes:

According to valid rules, the mandatory reserve requirements, which banks keep with the NBS, include:

dinar base: dinar deposits (including the state), dinar loans (including the state), securities and other dinar liabilities.*Hard currency base*: hard currency deposits (including the state), hard currency indexed dinar deposits, hard currency loans (including the state), subordinated capital, securities, other hard currency liabilities and other hard currency assets received from abroad from services the bank provides on behalf and for the account of third parties.

Dinar and hard currency base excludes: liabilities to NBS until December 2005, liabilities arising from private hard currency savings deposited with banks after June 30, 2001; liabilities for the repayment of debt for old hard currency savings and liabilities for the repayment of rescheduled debt to the Paris Club and the London Club. The base is lowered for the amounts of long-term housing loans insured by the National Corporation for Housing Loans Insurance.

Net own reserves of NBS increased in Q4 ...

... although for the first time after February NBS intervened on forex market

NBS continues with the lowering of policy rate ...

... at the end of Q4 9,5%

Net own reserves of NBS rose by 1,106 million euros (Table T7-10). The biggest increase was posted in December, based on drawing the second tranche of the IMF loan (349.3 million euros) as well as based on an European Investment Bank credit (49.5 million euros) as well as macrofinancial assistance from the European Union of 50 million euros⁶. Net own reserves of NBS, excluding the IMF loan, rose by additional 349 million euros in Q4. In December, the NBS launched interventions, to prevent sharp swings in the exchange rate of the dinar, based on which it had sold 100.5 million euros in interbank market (Table T7-11). Interventions were stepped up in January, when NBS sold 245 million euros, while in February, it spent 196 million euros to stabilize the exchange rate. The National Bank of Serbia lowered the benchmark interest rate in October and November by one percentage point and then, at the end of December, it made an additional, half a percentage point cut, following which the benchmark interest rate was lowered to 9.5 percent and has remained unchanged since then. This NBS move was in line with disinflationary impact of aggregate demand, which had kept the inflation rate close to the lower limit of the target band – as well as in line with efforts to redirect flows of bank lending from REPOs to loans to corporate and household clients. In early March, the NBS adopted a new decision on reserve requirements for banks. In line with an agreement reached with the IMF, NBS will over the next year gradually lower the mandatory reserve rate on hard currency assets from 45% to 25%, while the reserve requirement for dinar assets will be lowered from 10% to 5% (table T7-9). One of the goals of this decision is to increase transparency and simplify the reserve requirement rules, which has created significant deviations from the effective reserve requirement rates due to numerous exceptions and rate reductions. At the same time, the change will make it easier for banks to borrow abroad, which would increase the offer of hard currencies in the local market – which will have an impact on stabilizing the exchange rate of the dinar. As an ultimate outcome, this change should lead to a greater offer of loans and lower interest rates in Serbia.

Table T7-10. The Structure of Serbia's Foreign Exchange Reserves – Stock and Flow, 2006-2009

	2007				2008				2009			
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
	stock, in millions of euros											
NFA of Serbia	5,413	6,130	6,347	7,116	7,246	6,768	7,000	5,451	5,305	5,211	5,569	5,940
Commercial banks, net	-3,213	-2,918	-2,998	-2,379	-2,147	-2,163	-2,557	-2,562	-2,670	-2,824	-3,125	-3,519
Gross foreign reserves	693	712	690	1,403	1,070	1,017	1,087	1,385	978	936	1,380	1,694
Foreign liabilities	-3,906	-3,630	-3,688	-3,782	-3,218	-3,180	-3,644	-3,947	-3,648	-3,761	-4,505	-5,213
NBS, net	8,626	9,048	9,345	9,495	9,394	8,931	9,557	8,013	7,975	8,036	8,694	9,459
Gross foreign reserves	8,819	9,246	9,535	9,662	9,577	9,129	9,727	8,180	8,155	8,913	9,551	10,657
Foreign liabilities	-193	-198	-190	-168	-183	-198	-170	-167	-180	-877	-857	-1,198
IMF	6	1	3	4	3	1	1	-9	-14	-769	-756	-1,113
Other liabilities	-200	-199	-193	-171	-186	-199	-171	-159	-166	-108	-101	-85
NBS, NET RESERVES-STRUCTURE												
1. NBS, net	8,626	9,048	9,345	9,495	9,394	8,931	9,557	8,013	7,975	8,036	8,694	9,459
1.1 Commercial banks deposits	-3,358	-3,478	-3,584	-3,409	-3,411	-3,166	-3,343	-2,191	-2,136	-2,281	-2,471	-2,916
1.2 Government deposits	-1,247	-1,160	-1,172	-1,034	-874	-478	-457	-459	-536	-521	-542	-513
1.3 NBS own reserves	4,021	4,410	4,589	5,051	5,109	5,287	5,757	5,362	5,303	5,234	5,681	6,030
(1.3 = 1 - 1.1 - 1.2)												
	in millions of euros, cumulative from the beginning of the year											
NFA of Serbia	249	967	1,183	1,952	131	-348	-116	-1,665	-146	-239	118	489
Commercial banks, net	-24	270	190	809	232	216	-178	-183	-108	-263	-564	-957
Gross foreign reserves	-14	5	-17	695	-333	-386	-316	-18	-407	-449	-5	309
Foreign liabilities	-10	266	207	114	564	601	138	-165	299	186	-558	-1,266
NBS, net	274	696	993	1,143	-101	-563	62	-1,482	-38	23	682	1,446
Gross foreign reserves	-233	194	483	610	-86	-534	65	-1,482	-25	733	1,371	2,477
Foreign liabilities	507	502	510	532	-15	-30	-2	1	-13	-710	-690	-1,031
IMF	187	182	184	185	0	-2	-3	-12	-5	-761	-747	-1,104
Other liabilities	320	320	327	348	-15	-28	1	13	-7	51	58	74
NBS, NET RESERVES-STRUCTURE												
1. NBS, net	274	696	993	1,143	-101	-563	62	-1,482	-38	23	682	1,446
1.1 Commercial banks deposits	-148	-269	-374	-200	-2	243	66	1,219	55	-90	-280	-725
1.2 Government deposits	63	149	137	275	161	557	578	575	-76	-61	-82	-54
1.3 NBS own reserves	188	577	756	1,218	58	237	706	312	-59	-128	319	668
(1.3 = 1 - 1.1 - 1.2)												

Source: NBS.

Notes:

Hard currency reserves of the NBS are treated differently in a monetary survey and in NBS' balance sheet. Under the monetary survey, this category includes IMF loans and other external liabilities, while the NBS balance sheet, beside the listed items, also includes hard currency deposits of commercial banks (reserve requirements and other hard currency deposits).

⁶ In 2009, credits were the main source of hard currency inflows: 1,380 million euros, of which 1,137 million euros in principal – taken in two loan tranches from the IMF.

Table T7-11. Net Monthly Hard Currency Trade NBS – Banks and Exchange Offices, Nov. 2006–March 2009

	Interbank fx market (NBS-commercial banks)	Exchange offices	Total	
(-, net sale of foreign currency by NBS)				
in millions of euros				
Monthly average January–October 2006	-64	151	87	
November 2006	260	131	391	
December 2006	154	86	240	
January 2007	-412	42	-370	} -238 in Q1 2007
February 2007	-14.8	86	72	
March 2007	-54.1	114	60	
April 2007	0	137	137	} +288 in Q2 2007
May 2007	-75.9	160.1	84	
June 2007	-19	85.7	67	
July 2007	-22	93.9	72	} +195 in Q3 2007
August 2007	-23	106	83	
September 2007	-20	60	40	
October 2007	-4	72	68	} +212 in Q4 2007
November 2007	-20	76	56	
December 2007	-40	128	88	
January 2008	-57	63	6	} -168 in Q1 2008
February 2008	-129	39.6	-89	
March 2008	-105	20.6	-84	
April 2008	-64	31.2	-33	} +29 in Q2 2008
May 2008	-38	54.3	16	
June 2008	0	45.3	45	
July 2008	0	26.8	27	} +88 in Q3 2008
August 2008	3	33	36	
September 2008	0	24.7	25	
October 2008	-269	55	-214	} -746 in Q4 2008.
November 2008	-357	16.9	-340	
December 2008	-288	96.3	-192	
January 2009	-381.3	23.6	358	} -513 in Q1 2009.
February 2009	-175.1	12.6	-163	
March 2009	0	7.6	7.6	
April 2009	0	17.8	17.8	} +46 in Q2 2009.
May 2009	0	12.2	12.2	
June 2009	0	16.6	16.6	
July 2009	0	7.5	7.5	} +18.2 in Q3 2009.
August 2009	0	5.7	5.7	
September 2009	0	5.0	5.0	
October 2009	0.0	4.0	4.0	} -80.9 in Q4 2009.
November 2009	0.0	4.8	4.8	
December 2009	-100.5	10.8	-89.7	

Source: NBS.

8. Financial Markets

The fourth quarter saw a drop in the value of Belgrade Stock Exchange indices. The BELEX15 index slipped by some 20% in Q4, only to record growth of about 3% in January 2010. Indexes of regional stock markets also saw falls in Q4 and a slight recovery in early 2010. In Q4 the Belgrade Stock Exchange saw increased activity, as measured by both the value and the number of transactions. Growth was recorded both in the continuous and the discontinuous market segment. The National Bank continued cutting its reference interest rate in Q4 2009 – reducing it by 250bp to 9.5%. This reduction was accompanied by a drop in real repo yields measured relative to inflation and the dinar/euro exchange rate. The FFCD bond market saw a drop in activity, both as measured by the total value and the turnover in these bonds. Yields on FFCD bonds dropped across all maturities in Q4, excepting only the shortest ones; the yield curve remains inverted, but steeper than in Q3.

Q4 saw a rise in activity on the Belgrade Stock Exchange measured by both the value and the number of transactions performed

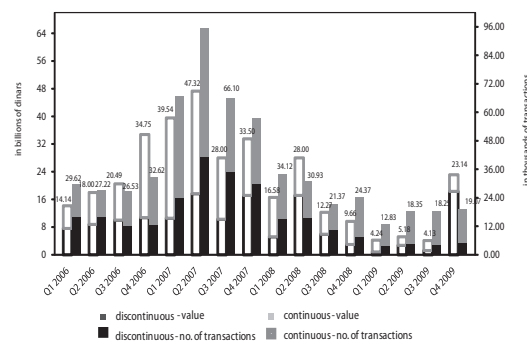
The discontinuous segment was responsible for the Q4 growth in the value of turnover in the stock market due to the block transaction used in the takeover of Apatinska Pivara

Belgrade Stock Exchange indices slumped in Q4, only to see slight growth since the beginning of 2010

The last quarter of 2009 saw a substantial increase in the value of turnover on the Belgrade Stock Exchange (Graph T8-1). The dinar value of turnover stood at some 23 bn, nearly six times as much as recorded in Q3.¹ This growth was primarily accounted for by the discontinuous market segment, which saw turnover worth some 18 bn dinars. This does not, however, indicate a new trend in the domestic capital market, but is rather the consequence of the purchase by CVC Capital Partners of InBev's Central and Eastern European breweries, including Serbian Apatinska Pivara. Thus, in early December, CVC purchased 1,949,930 Apatinska Pivara shares in a single block transaction for some 16.4 bn dinars. This sole transaction accounted for the exceptional growth in turnover in the discontinuous segment of the domestic market in Q4.

Even when the transaction involved in the purchase of Apatinska Pivara is excluded from our analysis, activity in the Belgrade Stock Exchange is still seen to have risen in Q4. The dinar value of turnover rose by some 50%, while the number of transactions performed was up by about 4.5% in relation to Q3. The continuous segment saw growth in the value of turnover of 65.6%, while the discontinuous segment recorded growth of 14.5%; we can thus say that the value of turnover rose across all segments of the stock market. The number of transactions performed remained nearly unchanged in the continuous segment, and rose by almost 20% in the discontinuous segment.

Graph T8-1. Volume and Structure of Share Trading, 2006-2009



Source: www.belex.co.rs.

Legend: FIT- Foreign Investors Participation in Total Turnover, FIS- Foreign Investors in Equity Market, FIB- Foreign Investors in Bond Market.

The value of the average transaction on the Belgrade Stock Exchange, even excluding the Apatinska Pivara takeover, rose for the first time since Q2 2008 and amounted to about 325.8 thousand dinars.

All indices following movements in shares in the Belgrade Stock Exchange slumped in Q4 (Graph T8-2). The BELEX15² index was down 19.6%, BELEXline³ lost 15.3%, while SRX⁴ EUR was down 23.5%. Indices of regional stock exchanges also slumped over the same period, but generally by somewhat less than those of the Belgrade Stock Exchange. The greatest fall, of 32.7%, was recorded by the Montenegrin MOSTE index; the lowest, of 4.9%, by the

Banja Luka BIRS. Croatia's Crobex and the Macedonian MBI-10 were down 8.8% and 11.3%, respectively. As global stock market indices rose in Q4, we can assume that investors are still withdrawing from the Serbian and regional stock markets.

1 Turnover worth some 4 bn dinars was recorded in Q3 2009.

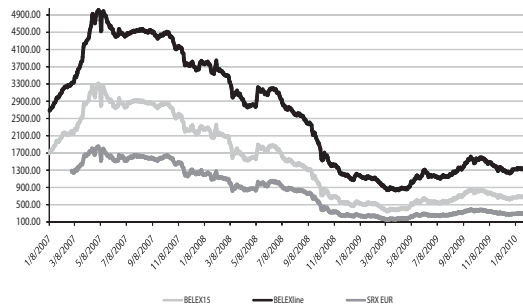
2 Index of the most liquid shares listed on the Belgrade Stock Exchange.

3 Overall stock index of the Belgrade Stock Exchange.

4 Index of the 8 most liquid shares on the Belgrade Stock Exchange as calculated by the Vienna Stock Exchange (*Wiener Börse*).

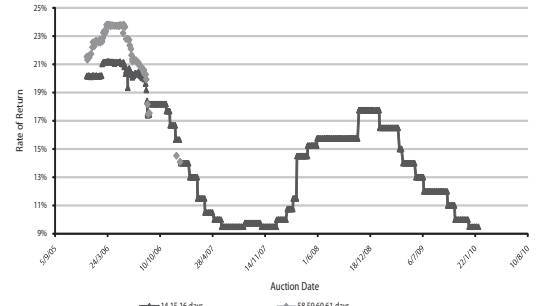
Belgrade Stock Exchange indices recorded quarterly highs at the beginning of Q3, on 16 October 2009 – BELEX15, BELEXline and SRX EUR stood at 843.74, 1591.25 and 379.74 index points, respectively, before entering a slide that lasted up to the end of 2009. The indices have been following a modest upward trend since the beginning of 2010. By 5 February BELEX15, BELEXline and SRX EUR recorded growth of 3.3%, 2.1% and 1.7%, respectively. Indices seeing growth since the start of 2010 were the Croatian Crobex, which grew 7.3%, and Macedonia's MBI-10, which rose 5.4%. On the other hand, Montenegro's MOSTE and the Banja Luka BIRS slumped 3.4% and 5.4%, respectively.

Graph T8-2. BELEXfm, BELEX15 and SRX EUR Indices, 2007-2010



Source: www.belex.co.rs, www.wienerborse.at.

Graph T8-3. Repo Yields by Maturity, 2006-2010



Source: NBS.

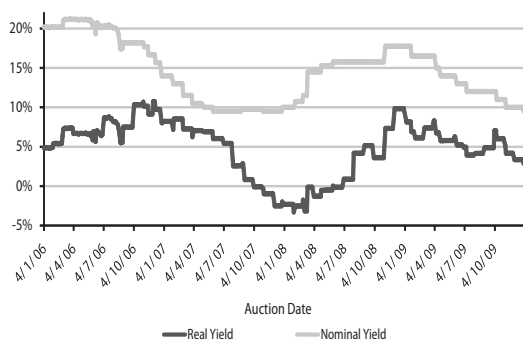
The NBS cut its reference interest rate by 250bp in Q4 2009, to 9.5%

In Q4 2009 the National Bank of Serbia continued pursuing its reference interest rate reduction policy first embarked on in Q1 2009 (Graph T8-3) as a measure intended to combat effects of the global downturn on Serbia's economy. In early Q4 the 2w repo rate stood at 12%, only for the NBS Monetary Board to cut it, as early as 9 October, by 100bp to 11%, and again, on 6 November, by another 100bp, to 10%. Finally, at its last meeting, the Monetary Board made an additional cut to the NBS reference rate, of 50bp to 9.5% - where it has remained over the first several months of 2010. In late 2007, when the NBS embarked on a cycle of increasing the reference rate in an attempt to curb inflation, the 2w repo rate amounted to 9.5% - meaning that the NBS has now returned to this level after a cycle of cutting the reference interest rate.

Real repo yields with regard to the dinar/euro exchange rate fell in Q4

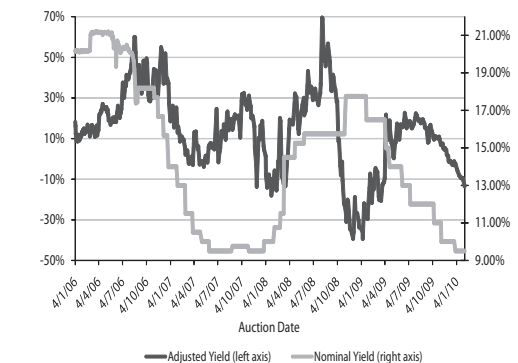
The cut in the NBS reference rate, combined with the depreciation of the Serbian currency, resulted in a fall in real 2w repo yields relative to the dinar/euro exchange rate (changes to the exchange rate over the preceding three months)⁵ in Q4 (Graph T8-5). In early Q4 real yields calculated in this way amounted to some 13%, only to decline to about -2.5% by year-end 2009. As the NBS continued cutting the reference interest rate further at the beginning of 2010, and as

Graph T8-4. Real (with regard to inflation as measured using RPI) and Nominal Repo Yields, 2006-2009



Source: NBS.

Graph T8-5. Repo Yields Adjusted for Expected Exchange Rate Movements and Nominal Yields, 2006-2010



Source: NBS.

5 A detailed explanation of this approach to calculating real repo yields is provided in K. Udovički, V. Đoković, "The Exchange Rate and Policy of the National Bank of Serbia: 2002–2006", Spotlight on: 1, issue 5 of QM.

the dinar continued depreciating relative to the euro, real repo yields fell further, to about -13% in early February.

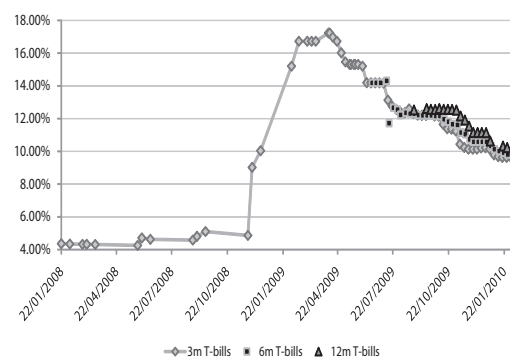
Real repo yields measured relative to inflation declined in Q4

As for real yields measured with respect to inflation, they continued declining in Q4 (Graph T8-4). The inflation rate rose in Q4, and, since the NBS was cutting the nominal 2w repo rate over the same period, real yields on these instruments fell from some 7% at the beginning of the quarter to 2.9% at year-end 2009.

Yields on NBS treasury bills continued falling in Q4

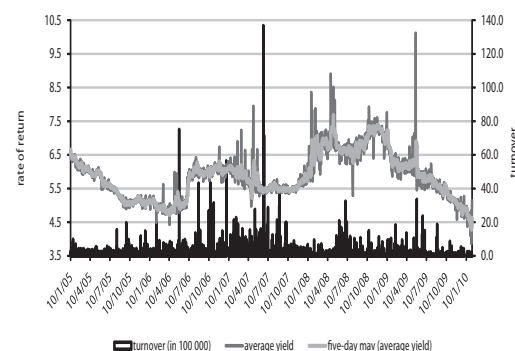
The decline in yields on Republic of Serbia treasury bills (T-bills) seen since Q2 continued into Q3 and Q4 2009 (Graph T8-6). Treasury bill yields fell over the quarter by between 184bp and 200bp, depending on maturity. At the start of the quarter, auctions of 3-month T-bills recorded yields of 12.15%, only for this figure to drop to some 10.14% by late Q4. Similarly, 6-month T-bills saw yields of between 12.17% and 10.33%. One-year T-bills, offered to investors in Q3 for the first time, recorded yields of 12.62% at the start of Q4 and fell to 10.64% over the quarter. Total nominal value of T-bill issues amounted to 26, 28 and 13 bn dinars for 3-month, 6-month and 1-year T-bills, respectively; realization was always 100%. Yields on T-bills continued falling in early 2010, and at the beginning of February stood at between 9.63% and 10.23% depending on maturity.

Graph T8-6. Yields in T-bill Market, 2006-2009



Source: Serbian Ministry of Finance.

Graph T8-7. Average Yield of FFCD Bonds



Source: www.belex.co.rs.

1) The graph does not depict extraordinary yield of A2006 bond of 42% on 10 March 2006. Note: The graph was derived as the weighted average yield on securities from A2006 to A2016. Turnover values for each of the securities were used as weights.

Volume and turnover in the FFCD bond market dropped in relation to Q3

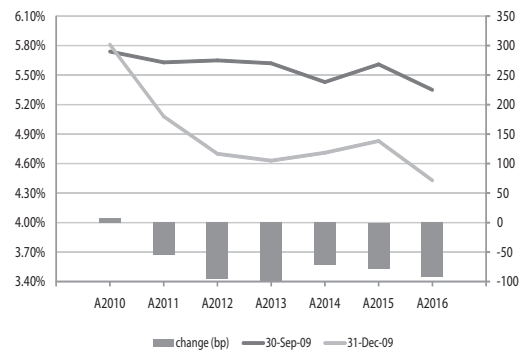
The volume and turnover in the FFCD bond market dropped in Q4 in relation to Q3 2009 (Graph T8-7). The volume recorded amounted to some €10.8 mn, while turnover stood at about €9 mn, respectively 25.2% and 21.7% less than in the preceding quarter. This activity level is the lowest recorded in the FFCD bond market since 2005.

Q4 saw a drop in average yields in the FFCD bond market, excepting only the shortest-maturity issue, A2010

Average yields on bonds of all maturities (excepting A2010, whose yield remained at approximately the same level) continued a downward trend in Q4 2009 (Graph T8-8). The fourth quarter saw a downward displacement of the yield curve – depending on bond maturity, yields fell by between 55bp and 99bp. The greatest fall, 99bp, was recorded by the A2013 bond. The yield curve for FFCD bonds remained inverted in late Q4, i.e. shorter-maturity bonds were seeing higher yields than longer-maturity ones. An increase in market risk and uncertainty may cause flight into safer investment and greater demand for longer-maturity bonds, raising their prices and reducing their yields, and inverting the yield curve. We can thus assume that the inverted yield curve in Serbia is primarily caused by instability. On the last day of Q4 the yields on A2010 amounted to 5.81%, while the yield on A2016 stood at 4.43%, a difference of 138bp – making the curve substantially steeper than at the end of Q3, when the difference amounted to 39bp.

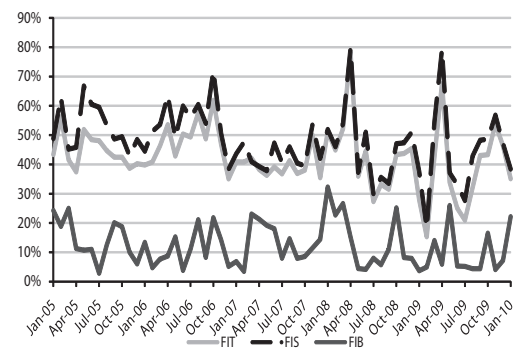
The average FFCD bond yield curve remained inverted at the end of Q4, and was steeper than at the end of Q3

Graph T8-8. Changes in Yield Curves for FFCD Bonds



Source: www.belex.co.rs.

Graph T8-9. Foreign Investor Share in BSE Turnover, 2005-2010



Source: www.belex.co.rs.

Legend: FIT – Foreign Investor Share in Total Turnover, FIS – Foreign Investors in Equity Market, FIB – Foreign Investors in Bond Market.

Foreign investor share in turnover in the bond market declined in Q4, yet remained stable in the equity market

Relative foreign investor share in turnover in the bond market (FIB curve, Graph T8-9) declined in Q4 from 16.5% in October to 7.2% in December, only to rise in January 2010 to 22.1%. The share of foreign investors in the equity market (FIS curve, Graph T8-9) remained stable at about 48% in Q4, except in November when it increased to nearly 57%. The same month saw foreign investor share in the bond market slip to 4.1%, the lowest figure recorded in this period.

9. International Environment

Although the world has continued exiting the crisis, there are doubts about the pace of economic recovery. Developing countries recorded faster growth than developed countries and the euro area witnessed minimum growth in Q4. Apart from low growth, the euro area was shaken by a crisis brought on by Greece's unexpectedly high budget deficit and causing apprehension amongst investors that a similar fate may befall Spain and Portugal. Although the budget deficit weakened the euro, the EU is expected to reach an agreement soon and publish a transparent plan on how to overcome these difficulties. Global inflation is still not a problem and most central banks of developed countries kept the policy rates at very low levels.

World

The deepest recession in modern history has been followed by a period of recovery, at a somewhat faster pace than expected. This led the IMF to revise the projected global growth rate by 0.75 percentage points – to 4% in 2010. Although the developing countries are recovering from the crisis faster than others, the IMF revised the projected growth rate of Central and East European countries by only 0.2 percentage points, expecting their growth to reach 2% next year, although it projects that all developing countries will have a growth rate of as many as 6%. Euro area countries in Q4 had somewhat lower growth than expected and the IMF will probably revise downward their projected growth rate of 1% in 2009. Growth in other developed countries will probably remain slow and below the potential level for a while. Low domestic demand in these countries is for now inhibiting faster recovery, a problem encountered to a much lesser extent by developing countries. Projections that developing countries will be immune to the crisis did not materialize, but these countries have for now steered their economies towards overcoming the recession much faster.

Onset of recovery prompts IMF to revise upward growth rate projections

Table T9-1. World: Economic Growth and Inflation, 2007-2009¹⁾

	Real GDP							Inflation		
	real growth (%)			real growth, seasonally adjusted (%)				y-o-y (%)		
	2007	2008	2009	Q1 2009	Q2 2009	Q3 2009	Q4 2009	Q2 2009	Q3 2009	Q4 2009
USA	2.2	1.3	-2.4	-6.4	-0.7	2.8	5.9	-1.2	-1.6	1.4
Canada	2.5	0.6	-2.6	-1.6	-0.9	0.1	...	0.1	-0.9	0.8
Japan	2.1	-0.4	-5.2	-3.2	1.3	0.0	1.1	-1.0	-2.2	-2.0
China	11.4	9.0	8.7	6.2	7.9	9.1	10.7	-1.5	-1.3	-0.4
Euro area	2.7	0.7	-3.9	-2.5	-0.1	0.4	0.1	0.4	-0.4	0.4
Germany	2.5	1.0	-4.9	-3.5	0.4	0.7	0.0	0.3	-0.2	0.4
France	1.9	0.7	-2.2	-1.4	0.3	0.2	0.6	-0.2	-0.4	0.4
UK	3.1	0.7	-4.8	-2.5	-0.7	-0.2	0.1	2.1	1.5	2.1
Italy	1.7	-0.9	-4.7	-2.7	-0.5	0.6	-0.2	0.9	0.1	0.7
Russia	8.1	5.6	-7.9	-9.8	-10.9	-8.9	...	12.4	11.4	9.2
Bulgaria	6.1	6.0	-5.8	-3.5	-4.9	-5.4	-4.8	4.1	1.0	0.0
Romania	6.0	7.1	-6.0	-6.2	-8.7	-7.1	-6.6	6.1	5.0	4.6
Hungary	1.3	0.6	-6.5	-5.6	-6.8	-7.1	-5.3	3.6	5.0	5.2
Croatia	5.6	2.4	-5.8	-6.7	-6.3	-5.8	-4.4	2.8	1.3	1.6
FYR Macedonia	5.9	4.9	...	-0.9	-1.4	-1.8	...	-0.6	-1.4	-1.6
BIH	6.0	5.9	...	...	...	...	...	-0.6	-1.4	0.0
Serbia	7.1	5.4	-2.8	-4.2	-4.2	-2.3	-0.9	8.7	7.9	5.9

Sources: Eurostat, OECD, National Bank of Bulgaria, National Bank of Romania, National Bank of Republic Macedonia, Russtat, State Bureau of Statistics of the Republic of Croatia, National Statistical Institute of Bulgaria, State Statistical Office of Republic of Macedonia, National Bureau of Statistics of China.

1) The GDP growth rate for the USA is the seasonally adjusted annual rate; the growth rate for other OECD countries is seasonally adjusted quarter on quarter, while the rate for the other countries is adjusted quarterly, year on year.

The expansive monetary policy combined with greater budget deficits pre-empted the recurrence of the Great Depression, and the encouraging financial data and output growth partly restored investor confidence, which led to a rise in the level of economic activity and trade at the global level. Neither groups of countries nor individual countries in specific groups are, however, recovering at the same pace. Developing countries will have higher growth than developed countries.

Amongst emerging markets, the fastest growth will be recorded by the region of East Asia and the slowest by the East European countries.

Although the pace of recovery appears uncertain, the money market has stabilized. Banks depend less on central bank liquidity injections. Credit channels to the economy are low in intensity because reserves are amassed to improve the bank balances, while, at the state level, some smaller countries face the potential problem of funding their own budget deficits, which indicates instability in their securities markets, particularly after the crisis in Greece.

Greece undergoing a crisis after its huge budget deficit is revealed

Portfolio investments were renewed in developing countries, particularly in exporting countries, while the flow of capital via cross border credits has definitely abated, wherefore investments in economies vary, depending on the type of funding that predominated before the crisis.

Eurozone

GDP growth in the euro area in Q4 was below expectations and is initially estimated at 0.1%. Throughout 2009, the economy contracted by 4%, the most since the euro area was established. As opposed to Q3, when industrial output stimulated by fiscal measures recorded 2% growth, its growth in Q4 stood at a mere 0.2%. Although detailed data have not been published yet, it may be concluded that net exports contributed to growth because global demand is recovering. Weak consumer spending is the main obstacle to continued economic expansion. Retail dropped for the seventh consecutive quarter, by 0.3% in Q4. V shaped recovery will obviously be impossible until consumer spending recovers.

Euro area GDP growth below expectations

The year-on-year decline of Germany's GDP stood at as many as 4.9% and no growth was recorded in Q4 (0%¹). Exports of goods rose in Q4 (5.1%) but imports fell due to the slump in consumer spending (-1.8%), wherefore the effect of net imports was positive. Consumer spending has probably fallen, as has the level of investments. The impact of these two factors will continue in the ensuing quarters and growth will probably be low.

Italy's GDP fell by 0.2% in Q4, although projections were that it would grow by 1%². Industrial output, however, declined by 0.7% m-o-m in December after previously growing for two months. Production of consumer goods recorded the highest growth and production of capital goods the greatest decline. Surveys indicate positive growth in the ensuing quarters, particularly in the manufacturing industry, where they recorded the best results since early 2008. Moreover, the weak euro will benefit exporters, but growth will still be undermined by the surplus of unutilized capacities, falling employment and low consumer spending. The unemployment rate in Italy stands at 8.3%, which is much lower than the euro area level. It needs to be highlighted that the low unemployment rate cannot be taken as a reliable sign of lesser decline in consumer spending in Italy prima facie, because some of the persons of working age left the labor market and the employment rate of the 15-64 working-age population has dropped to 57.1%, one of the lowest rates in developed countries.

As far as projections are concerned, the overall PMI Index, which is a good indicator of GDP growth, points to continuation of growth but its value has begun falling, which leads to the conclusion that there is a greater risk of slow recovery. The low utilization of capacities reduces new investments, domestic demand is not recovering and the situation in the labor market is negatively impacting personal spending. Only exports are sure to continue positively affecting future growth.

Euro area shaken by crisis in Greece

The financial crisis had broken out in the US, but, it is the euro area that is now unexpectedly shaken by the crisis in Greece. This country will be unable to meet its financial obligations and pay the interest on its state debt. Instead of the planned 5% budget deficit after the October elections, the public learned that the budget deficit reached 12.7% of GDP. The GDP recorded a circa 1% decline y-o-y last year while consumer spending suffered an even greater contraction.

1 Growth rates for OECD countries (except the USA) are seasonally adjusted also q/q.

2 Credit Agricole projection.

***Crisis in Greece
spilling over to
Spain and Portugal***

This led to a drop in tax revenues, the level of which depends on the VAT the most. Apart from these factors, state spending was increased to woo voters in the run-up to the October elections. Statistical agencies probably intentionally misinformed the public of the situation. This case reveals that institutions in the euro area are suffering from serious deficiencies and that Greece may not be its only weak point.

Although the Greek Government published its plan on cutting budget spending, its implementation has been hindered by large-scale strikes by public administration and public enterprises employees. The opposition sided with the employees because it does not want to lose potential voters.

There are several scenarios on how to address the crisis in Greece. One entails halting payment of state debt interest. The other involves an international action and a package of measures to overcome the crisis. This package will be under the jurisdiction of either the IMF or the EU. In terms of efficiency, an action under IMF supervision would probably be more efficient, but it would bring into question the reputation of the EU and the euro area. The Greek Government must send clear signals to relieve the unease in the Greek state securities market and reassure the investors that the budget deficit will be cut down to around 8.7% in 2010.

The crisis in Greece spilled over to Spain and Portugal via the financial markets. These two countries also face the problem of high budget deficits. Their governments will meet with resistance as well if they attempt to cut the budget deficits sharply. Due to the high level of decentralization, the Spanish Government does not have the instruments to directly influence regional spending. Portugal is run by a minority government which is powerless to implement sharp reforms.

Total inflation in the euro area stood at 0.4% y-o-y in Q4. The rate was quite low, but it has been continuously rising since July. Total y-o-y inflation stood at -0.1% in October but rose to 0.9% in December already. On the other hand, core inflation fell mildly and its temporary increase by 0.1 percentage point in December was probably an exception. The trend of decrease is expected to continue because weak labor market demand will limit wage inflation, one of the main factors leading to the increase in core inflation. Unemployment has never been higher since 1998. Monetary flows also adversely impact inflation, because M3 growth in December remained negative year-on-year (-0.2%).

The European Central Bank (ECB) Governing Council kept the policy rate at the 1% historical minimum. Total inflation in 2010 and 2011 is projected to stay below the 2% target level. This is why the policy rate will remain unchanged until the end of 2010, although economic activity is expected to continue increasing and gradually heating. The ECB President reiterated that non-standard measures would be gradually phased out, pursuant to the planned exit strategy. The ECB also advised the EU governments to prepare and implement fiscal reforms without delay because the timing of the reforms is important for the euro area's stable growth.

The unemployment rate mildly rose in December over November, from 9.9% to 10%. Notwithstanding the increase in unemployment, data clearly indicate that its growth rate is abating. The number of unemployed rose by 87,000 in December, the lowest monthly increase since the onset of economic recovery and a much smaller increase than the record-high 451,000 in March 2009. The improvement is also visible when country data and not only euro area data are analyzed. In Spain, for instance, the unemployment rate has been stabilizing slowly – it increased by only 0.1 percentage points in December, the lowest monthly increase in the last two and a half years.

The euro area recorded a 15 billion euro trade surplus in Q4. Germany, which had the highest surplus, contributed the most to the euro area surplus, while France had the highest deficit. Exports remained at a low level compared with 2008, particularly exports to the US and the East European countries. Exports to China mildly rose year-on-year thanks to its high economic growth, which is probably the reason why the euro area continued recording a surplus.

East Europe and Neighboring Countries

Bulgaria

Bulgaria makes headway in institutional reforms

Bulgaria's GDP growth rate was negative in Q4, standing at -4.8%. The greatest decline was recorded in the manufacturing industry (-8.2%) but neither the service nor agricultural sectors saw positive growth. Imports declined more steeply than exports, but not enough to result in a trade surplus. Capital investments suffered a somewhat lower fall than in Q3, but it is still too early

Table T9-2. Central and East European Countries – GDP Growth Rate Projections

	2009	2010
Albania	0.7%	2.2%
Armenia	-15.6%	1.2%
Azerbaijan, Rep. of	7.5%	7.4%
Belarus	-1.2%	1.8%
Bosnia & Herzegovina	-3.0%	0.5%
Bulgaria	-6.5%	-2.5%
Croatia	-5.2%	0.4%
Czech Republic	-4.3%	1.3%
Estonia	-14.0%	-2.6%
Georgia	-4.0%	2.0%
Hungary	-6.7%	-0.9%
Kazakhstan	-2.0%	2.0%
Latvia	-18.0%	-4.0%
Lithuania	-18.5%	-4.0%
Macedonia, FYR	-2.5%	2.0%
Moldova	-9.0%	0.0%
Montenegro, Rep. of	-4.0%	-2.0%
Poland	1.0%	2.2%
Romania	-8.5%	0.5%
Russian Federation	-7.5%	1.5%
Serbia, Republic of	-4.0%	1.5%
Slovak Republic	-4.7%	3.7%
Slovenia	-4.7%	0.6%
Ukraine	-14.0%	2.7%

Source: IMF, January 2010.

Note: These are IMF projections from January 2010, while in Table T9-1 we showed the national statistics data published later on, hence the difference between the data in these two tables.

to declare the definite end of recession in Bulgaria. The state administration and public companies are being downsized, which will result in a drop in the population's purchasing power in the upcoming period. The structural changes, aimed at boosting exports to make up for lower domestic demand, have not yielded visible results yet, although the trade deficit fell due to lower imports. The macroeconomic and political situations have, however, improved, notwithstanding negative growth. FDI's are fortunately covering the entire current account, which has resulted in the greater stability of the domestic currency. Moreover, Bulgaria's budget deficit in 2009 was the lowest in the EU, slightly under 1% GDP. This proves the effectiveness of the tax system changes and the cut in discretionary budget expenses. The EU unfroze part of the aid to Bulgaria after establishing that the Bulgarian government made headway in combating corruption. The change in Bulgaria's rating according to S&P – from negative to stable – is the crown of its success. The risk of deflation has considerably decreased, because inflation rose from 0.3% in October to 1.6% in January. It may be concluded that a longer-lasting solution to the crisis is not on the horizon yet, but that the situation is improving in terms of investment quality and the stability of the macroeconomic framework.

Romania

Flash results show that Romania's GDP growth rate stood at -6.6% in Q4, as had been expected. The GDP was thus 7.2% lower in 2009 than in 2008. All sectors seem to be experiencing decline. Surveys indicate that the negative growth of activity will continue and the level of employment in them will continue to fall as well. This is the main obstacle to faster recovery, because domestic demand is weak under pressures from the circumstances in the labor market. Total inflation stood at 4.7% in 2009, which is the lowest level of price increase since Romania entered the post-Socialist era. Inflation, however, sharply rose to 5.2% in January, above all due to the higher prices of fuel, tobacco and cigarettes. This prompted the Central Bank to revise the 2010 inflation projections from 2.6% to 3.5%. The price hike in January can to a large extent be attributed to

**Presidential elections
in Romania resolve
political crisis**

higher excises aimed at increasing tax revenues. The tax collection level sharply dropped due to the fall in activity wherefore the one of the new government's priorities is to prevent the growth of the deficit. The Central Bank cut the policy rate by 0.5 percentage points to 7% because the Romanian currency stabilized after the arrangement with the IMF came into force.

Presidential elections were held in late 2009 after a political crisis. Traian Basescu won the elections and put together a coalition government with his Democratic Liberal Party at its heart. Given that merely a government reshuffle was at issue, the next parliamentary elections are to be held in three years' time. Although the new cabinet will not rule a full term in office, it has enough time to make additional headway in tackling corruption and maintaining a fiscal balance. The political crisis in late 2009 seems to have been short-lived, because it was essentially provoked by positioning in the run-up to the presidential elections. There is now a greater consensus on the reforms required by the IMF and the EU. Although the Government now enjoys relative support abroad, this may change if the coalition partners fail to implement the agreed reforms due to inter-party squabbling. This is why political risk remains a factor that may slow down the pace of economic recovery.

United States of America

US GDP growth in Q4 was positive as expected but exceeded the forecasts and reached 5.9% (saar)³ This was the highest quarterly growth rate since Q3 2003 and was much higher than the growth rate in Q3 last year (2.2%). Contraction stood at 2.4% year-on-year in 2009.

**Growth in Q4 exceeded
expectations**

Such high growth is due to the lesser than expected decline in the stock of supplies and the increase of all of the main GDP components apart from state spending. Consumer spending grew by 2% and the future trend will depend on how the situation develops in the labor market and changes in share prices in the near future.

The upturn in investments in residential housing was more moderate in Q4 (5.7%) than in Q3 (18.9%). Given that the financial collapse was for the most part caused by the crisis in the real estate market, analysts are keeping a close eye on residential prices and construction activity. The growth rate indicates that the situation has improved to an extent and that the hike in Q3 was primarily due to the temporary measures, tax reliefs and relatively low housing credit interest rates.

Non-residential investments finally recorded growth, of 2.9%, after falling for five consecutive quarters. Purchase of equipment is expected to continue growing, while growth of investments in commercial facilities will probably be lower in the quarters ahead of us. The stock of supplies has mildly fallen and the cycle of decline is expected to end soon.

State spending was the only component that recorded a negative growth rate, albeit a low one (-0.2%), while imports grew at a lower rate than exports, wherefore net exports contributed to GDP growth in Q4.

Total inflation stood at 1.5% and core inflation at 1.7% in Q4.⁴ Core inflation was fairly stable in the quarter, while the total inflation rate grew because the prices of energy generating products recovered. The policy rate remained at 0.125% and there is no grave danger from inflation for now because the utilization of capacities is still low, as are inflationary expectations. Purchase of toxic securities to support the development of real estate market activity will, however, continue because the market is not displaying clear signs of recovery yet. Most special liquidity boosting programs were discontinued in early February. The policy rate will probably remain unchanged throughout 2010, although, in its latest statement, the FED stated that it could not guarantee this.

³ Seasonally-adjusted annualized quarterly growth rate.

⁴ Inflation measured by the Consumer Price Index.

Domestic demand must consolidate if the GDP is to continue growing. This is why the situation in the labor market indicates the recovery risks. The latest data in the field do not indicate V-shaped recovery. The unemployment rate surprisingly fell by 0.3 percentage points (to 9.7%), although the total non-agricultural payrolls were reduced by 20,000. This can be ascribed to the fact that some of the unemployed have stopped looking for a job and are thus not participating in the labor market. On the other hand, benefits of high growth are reaped by the employed, because the average number of working hours per week has increased wherefore this group has been earning increasingly higher incomes. Furthermore, an increase in the average number of working hours per week is usually followed by a wave of employment.

The current account deficit rose from 33.2 billion USD in October to 40.2 billion USD in December. Both imports and exports grew, the former to a greater extent. The increase in imports cannot be attributed solely to the higher price of oil, but to increasing US demand for imported goods as well. Some analysts interpret this as indication that US domestic demand is recovering. Exports of capital goods grew more than expected wherefore the initial projection of the GDP growth rate is sure to be mildly revised upward. Capital goods imports increased considerably, which is encouraging and may herald the beginning of greater investments by US companies.

***President Obama
announces financial
system reform***

President Obama announced a reform of the financial system. The regulatory changes partly resemble the Glass-Steagall Act adopted in the 1930s to eliminate the risks that had led to the collapse of commercial banks during the Great Depression and which separated the activities of commercial and investment banking. The Act was repealed in 1999 and the major US banks began increasingly trading in mortgage securities and other derivatives that triggered the financial crisis. Obama's reform aims to limit the size and scope of operations of the banks. Once the size of banks is restricted, it will be impossible to consider any of them "too big to fail", the belief that exacerbated the causes of the most recent financial crisis. Commercial banks will no longer be allowed to operate their own hedge funds and conduct speculative activities. Only investment banks will be able to involve in such activities but they will not be allowed to accept the savings of ordinary depositors.

Big banks oppose the initiative, and a silent war is waged between investment bank lobbyists and the US Administration. The financial markets underwent an adjustment after Obama announced his plan, but it remains uncertain whether he will continue uncompromisingly fighting for the law like he said he would, given the great resistance he faces. The opponents of the plan believe that his goal is to appease the voters who expect the banks to be punished in some way for the crisis and that tactical politicking is at issue, that an efficient reform entails better regulation of trade in derivatives not restrictions of the size and scope of banks.

Asia

China

China's economy recorded a high growth rate of 10.7% in Q4 and official statisticians revised upward the rates for Q1 and Q3, wherefore China's overall growth stood at 10% in 2009. The continuation of growth will be supported both by the expansion of exports and by personal spending and investments. Public spending and infrastructure investments will also be expansive, but their growth rates will slowly decelerate during the year. On the other hand, commercial banks have placed more credits than expected and the compulsory reserve rate was raised by 0.5 percentage points to "clear" the surplus of liquid assets. Statements by Chinese officials lead to the conclusion that the monetary authorities may be planning on increasing the policy rate because there is a risk of higher inflation. Raising the policy rate will adversely affect investments, but the opinion prevails that the central bank's policy will remain within the plan, pursuant to which the 2010 growth rate will be 10%. This is why the risk of an excessively restrictive policy is relatively low.

Japan

Preliminary data show Japan's GDP grew at the rate of 1.1% in Q4 i.e. fairly above expectations. These data should be taken with a grain of salt given that Japanese preliminary data are frequently considerably revised a posteriori. For instance, preliminary projections put growth at 1.2% in Q3 but it was subsequently announced that there was no growth in that quarter. Growth in Q4 can mostly be attributed to exports, encouraged by demand in East Asian developing countries. Consumer spending contributed to growth as well because the citizens decided to make use of government benefits for the purchase of eco cars and household appliances. Capital investments finally recorded moderate growth, after declining for six consecutive quarters. It is still too early to assess whether the recovery is sustainable, given the several obstacles impeding rapid recovery. The yen is at a high level and Japanese companies are better off launching production in China than at home. This will result in somewhat lower growth of investments. Two major exporters, Toyota and Honda, were heavily criticized by the media for their faulty cars – their image in the Western markets has been seriously shaken, which is likely to affect their profits.

Japan's economy is again undergoing deflation: the policy rate remains at 0.1% but experience has shown that maintaining a very low policy rate and increasing liquidity cannot fully resolve the problem of falling prices. This is why Japanese central bank officials stated that deflation could be combated if exports continued growing to meet demand in South-East Asia, but that the industry had to undergo structural change to make it more flexible to changes in external demand.

Currencies and Commodities

The consequences of the crisis in Greece considerably weakened the euro in late 2009. The European currency will remain under pressure until foreign investors are convinced that the Greek Government will reduce the deficit. The exacerbation of the problem has been averted temporarily, but the plan must be transparent and enjoy broad political support. Although there is still no definite consensus on the roles of the IMF and the EU in the resolution of the crisis, an agreement is on the horizon and, if it is reached soon – projections are that the dollar will weaken and that the average EUR/USD exchange rate in March will be 1.44.⁵

The dollar strengthened in the period behind us not only because of the Greek crisis but also due to the US stock market adjustment. The index measuring market volatility has sharply risen and the dollar is again playing the role of a 'safe haven'. When the volatility level rises, investors withdraw money from "emerging markets" and buy dollars. Analysts fear that China may conduct its monetary policy too restrictively wherefore the rate of the dollar will be also under the influence of this factor in the short term.

Despite the strengthening of the dollar and relatively stable supplies, the price of oil has gone up to around 80\$, which is somewhat higher than the average 2010 price projected by the IMF. The price increase was partly due to apprehensions that OPEC countries would cut production when they assessed the supplies were sufficient. The strike of French refinery workers increased the uncertainties regarding future deliveries, although this will probably have only short-term effects. Political tensions between Iran and the Western countries have, however, grown and international negotiations on its nuclear project may result in considerable increases in the price of oil.

⁵ Credit Agricole prediction.

HIGHLIGHTS

Highlights 1. Strengthening of Fiscal Responsibility Through Fiscal Rules

Milojko Arsić*

A pronounced macroeconomic instability, accompanied by a trend of expanding public debt, in the course of the 1960s and 1970s, had encouraged a macroeconomic policy review in the majority of developed countries. Even in countries with long-standing democratic tradition it had been observed that macroeconomic instability, measured by inflation and unemployment rates, was firmly linked to political cycles. Ahead of elections, as a rule, monetary and fiscal policy expansiveness was growing with an aim of boosting the chances of ruling parties in the elections. As a result of such policies, the real levels of spending, employment and economic activity rose ahead of elections, while mid-term results were an increase in inflation and public debt. Moreover, after several repetitions of such policies, its effectiveness tended to decline: positive pre-election results were getting weaker and negative mid-term impact greater. High and variable inflation, economic stagnation and a high level of public debt were the final outcome of such policies.

The first macroeconomic policy's response to previously described sequence of events in developed countries was to weaken the influence of governments on monetary policy, i.e. to boost independence of central banks. The strengthened central bank independence had cut down a pro-cyclical character of monetary policies, which had resulted in lower inflation rates and less variability. However, massive fiscal policy oscillations, along with high fiscal deficits, still generated macroeconomic instability, which was reflected in huge oscillations of interest rates, exchange rates, foreign trade deficits and external debts along with a long-term trend of rising public debt-to-GDP ratio. It became fairly obvious that the strengthening of central bank independence was not enough for long-term macroeconomic stability and that an adequate fiscal policy change was required.

Considering that fiscal policy "outsourcing" from the government is not possible, a large number of countries introduced fiscal rules over the past two decades to cut down the pro-cyclical character of fiscal policies. *Fiscal rules are defined as permanent fiscal policy restrictions in the form of a group of fiscal performance indicators, such as the budget deficit, public debt or their key determinants*¹. The

introduction of fiscal rules cuts down fiscal policy discretionary rights contributing to less fiscal policy abuses during political cycles. Fiscal rules most frequently are launched through the adoption of a special law on fiscal responsibility or by including some special articles in the law on budget system – a systemic law for public finances. In some countries, the most important fiscal rules are part of the Constitution.

In essence, there are two types of fiscal rules. The first group is comprised of fiscal rules defining procedures and decision making principles in fiscal policy without determining concrete numerical restrictions for fiscal variables. Such an approach is implemented largely in countries with strong institutions and significant public policy reputation where defining of the general rules is part of legal tradition (Anglo-Saxon countries). The second group of fiscal rules, which is implemented in the majority of countries, is made up of numerical fiscal rules defining restrictions for fiscal variables: e.g. ratios of public debt, fiscal deficit or public spending to GDP. In some cases, one limits the pace of growth of total public spending or some of its parts to GDP. Of course, procedural and numerical rules do not exclude each other, so in practice, there is often a combination of the two, with procedures improving the budgetary process being defined along with numerical rules.

The number of fiscal rules implemented in a country is relatively small², and they are defined in a general form, so as to leave a chance to various governments to pursue fiscal policy in line with their priorities. It is, also, customary that regulations on fiscal responsibility also contain corrective rules which are implemented in the case of natural disasters, social conflicts or deep recessions. For instance, a rule that suspends the limits on fiscal deficit-to-GDP ratio has been activated during current economic crisis in the majority of countries, which implement fiscal rules. However, the implementation of fiscal rules obliges the government to adjust its fiscal policy after the recession ends, so as to bring the fiscal deficit and public debt back to sustainable levels.

The majority of countries that have legally defined fiscal rules have established a fiscal council or a similar expert group independent from the government. The role of the fiscal council is different in different countries, but their usual tasks include the preparation of macroeconomic and fiscal projections, fiscal policy analysis, assessment of compliance with fiscal rules, etc. An important role of the fiscal council is to point to different forms of

* Faculty of Economics, University of Belgrade and FREN.

¹ Kopits i Symansky (1998).

² Countries on average have 2,5 fiscal rules.

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bookkeeping tricks³ or “fine tuning” of the statistical indicators by the government, aimed at creating an impression that fiscal rules have been met. The fiscal council most often assesses the fulfillment of conditions for the implementation of corrective rules. The successful functioning of the fiscal council demands a high level of expertise of its members, but also its independence from political factors, including political organizations that had nominated the council’s members.

The number of countries to have introduced fiscal rules over the past two decades has drastically grown. While at the start of the 1990s only a few countries had such rules (Germany, Italy, Japan and the Netherlands), fiscal rules existed in 80 countries around the world⁴ at the start of 2009. It is important to note that such rules exist in developed countries (26 countries), developing countries (33 countries) and non-developed countries (26 countries) alike. Apart from fiscal rules, some countries have supra-national fiscal rules, such as the rule on fiscal deficit and public debt to GDP ratio for the countries members of the European Monetary Union.

It can be seen that the introduction of fiscal rules has on average significantly improved fiscal performance of countries which implement those rules⁵. Developed countries, which implement fiscal rules, have seen a more significant reduction in public debt-to-GDP ratio than the countries, which do not implement those rules. Similarly, countries implementing fiscal rules have significantly lowered the cyclically-adjusted primary fiscal deficit, more than countries that do not apply those rules.

One of the questions about fiscal rules refers to the election of the right moment for their introduction. In many countries, the rules were launched several years after successful fiscal adjustment, in terms of lowering of the fiscal deficit or public debt to GDP ratio. That means that the introduction of fiscal rules has cemented achieved results and ensured the continuation of developments towards achieving fiscal sustainability over long run⁶. In some countries, such as Germany, fiscal rules were adopted together with a transition period, during which fiscal policy has time to adjust to set rules.

Besides, permanent fiscal rules are rarely introduced during times of strong economic instability. During periods of economic instability, countries usually implement ad hoc fiscal adjustment programmes, designed to eliminate the biggest imbalances, while permanent fiscal rules take effect only after a certain level of macroeconomic stability has been achieved. However, from

the aspect of economic policy credibility and its positive impact on expectations, it is desirable that a country undergoing a period of macroeconomic instability adopts permanent fiscal rules during the implementation of a fiscal adjustment programme, with the rules taking effect some years later. The adoption of permanent fiscal rules would send a clear message to the public that the results of an ad hoc fiscal adjustment programme will be sustainable, i.e. that the likelihood of a return to unsustainable fiscal policy will be lowered.

The adoption of permanent fiscal rules, along with the implementation of ad hoc measures during a transition period, could have a positive effect on expectations and contribute to an improved credit rating of the country, thus bringing down the risk premium. However, to achieve all those results, it is necessary that fiscal adjustment is consistent during the transition period, without significant deviations from what is established as a sustainable fiscal policy over the long term.

A Possible Concept of Fiscal Rules for Serbia

A need for fiscal rules in emerging markets, including transition countries, is greater than in developed countries with stable institutions. In Serbia, the need for fiscal rules is even greater because it typically has governments with a large number of coalition partners. Such governments have difficulty to establish priorities, so that the government programme is determined as a group of programmes of coalition members. Beside that, junior coalition parties express no responsibility for macroeconomic results (price stability, sustainable macroeconomic growth) and are rather interested only in maximizing results in their areas of responsibility. In complex coalition governments, beside the usual effort to transfer any burden of stabilization measures to future governments, there is also an effort to transfer the burden of stabilization to other areas, which are the responsibility of their coalition partners.

Apart from domestic reasons for the introduction of fiscal rules, Serbia has two important external reasons. The first reason is that the adoption of fiscal rules is one of the commitments Serbia made under the ongoing stand-by arrangement with the IMF. Another reason is that joining the European Monetary Union implies the fulfillment of a set of rules, including the rules on fiscal deficit and public debt to GDP ratios. Having in mind negative EU experience with Greece and other member countries from southeast Europe, one can expect the EU to become stricter in the future in respect to demand to meet conditions to join the monetary union. Therefore, the introduction of fiscal rules in Serbia can be seen as an integral part of the country’s EU integration.

3 The State auditing institution has important role in uncovering bookkeeping tricks.

4 IMF (2009).

5 See IMF (2009) for more detail.

6 See IMF (2009) for more detail.

Taking into account that Serbia is facing economic crisis and that the pace of recovery is uncertain, we believe that it would be good to legally define permanent fiscal rules in the course of 2010, so that they take effect in 4-5 years, and that a fiscal adjustment programme, leading to permanent rules is implemented during a transition period.

Permanent Rules

Serbia still lacks strong institutions, therefore it is necessary that numerical rules constitute the backbone of permanent fiscal rules. Of course, just like in other countries, those rules would be backed by procedural rules to improve the efficiency of the budgetary process. Numerical rules would refer to the size of public debt, fiscal deficit and public spending versus GDP. Numerical rules would be defined for the consolidated state sector, which means that they would encompass the central government, Vojvodina province and local governments. The state spending would be widely defined, including categories such as those funded from project financing.

The listed rules are firmly interlinked – once a maximum level of public debt to GDP is determined, one can calculate the size of the fiscal deficit which is in line with the public debt. Based on the fiscal deficit and corresponding assumptions of public revenue performance, one can determine the level of public revenues to GDP.

The first step towards defining fiscal rules would be to determine a sustainable public debt to GDP ratio over the long term. It is assessed that the public debt to GDP ratio for Serbia, after a four-to-five year transition period, would be 40–45% of GDP. Therefore, the first dilemma is whether the mentioned ratio represents at the same time a level that is sustainable over long-term or a long-term goal should be to cut down the public debt to GDP ratio.

After the choice has been made between the long-term level or a trend in public debt to GDP ratio, one would establish a rule for the fiscal deficit. If the long-term ratio of public debt to GDP was to be set to fluctuate in a band of 40–45% of GDP – the average consolidated fiscal deficit could be 2% of GDP⁷. Of course, if the choice was to be made that public debt to GDP ratio should be falling over a long period of time – the average fiscal deficit would be lower than the mentioned 2% of GDP. The fiscal deficit would vary, from year to year, around a targeted average value, so that the fiscal policy could have an anti-cyclical impact on economic activity and employment. That means that during the

periods of recession, the fiscal deficit would be above 2% of GDP, while in periods of expansion it would be below 2% of GDP. To determine the level of the deficit for a certain year, it would be necessary to calculate a cyclically adjusted deficit – the deficit which would stay at an average 2% during an economic cycle. Beside cyclical fluctuations, the level of the fiscal deficit is also affected by structural reforms, such as the change in domestic demand to GDP ratio or changes in the tax system. The common impact of cyclical oscillations and structural reforms on the fiscal deficit will be measured by the structural deficit.

The fiscal policy implementation, based on cyclically adjusted or structural fiscal deficit allows economic policy makers an additional flexibility, but at the same time demands an increase in expert capacity so that the listed calculations can be adequately fulfilled. If a fiscal policy is pursued based on a cyclically adjusted or structural deficit, there is a risk of the government institutions “fine tuning” the calculations which would allow a greater expansiveness of the fiscal policy. One of the reasons to establish an independent fiscal council is to ensure protection from political bias while calculating the targets.

Beside the fiscal deficit and public debt, it is also necessary to define a sustainable ratio between public spending and GDP for a long period of time. A sustainable level of public spending over the long term, together with the existing tax system and a fiscal deficit of around 2% of GDP, amounts to 40% of GDP. If the fiscal capacity of the Serbian economy were to increase by one percentage point of GDP, a sustainable level of public spending would also rise by one percentage point of GDP. Even though it is justified for the Serbian economy to expand its fiscal capacity by one percentage point of GDP, it is necessary to establish the limit on the ratio of consolidated public spending and GDP at the level of 41% of GDP. Setting the upper limit to public spending to GDP ratio, along with the agreed fiscal deficit level would at the same time prevent any excessive fiscal burden.

Apart from setting the limits on public debt, fiscal deficit and public spending, it is also necessary to define corrective rules, which would be implemented at times of natural disasters, social conflicts or deep economic crisis. Corrective rules would allow for the public debt, fiscal deficit and public spending exceed levels established by permanent rules. Corrective rules would also contain parameters that should ensure that fiscal variables return to levels determined by permanent rules once the extraordinary conditions are over.

Fiscal Adjustment During the Transition Period

A fiscal adjustment programme over four to five years

⁷ Setting the fiscal deficit level depends on a number of assessments and assumptions, such as long-term ratio between GDP growth rate and real interest rates, movements of the real exchange rate, tax policies, etc.

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would be relatively detailed, containing a planned movement of public debt, fiscal deficit and total public spending and their important components: consolidated public revenues, etc. With the introduction of fiscal rules for the transition period, one would lower the possibility of a significant increase in pensions, wages or subsidies ahead of elections, also narrowing the space for political parties to compete in pre-election campaigns with pledges which as a result lead to a significant post-election fiscal expansion.

Due to the implementation of planned infrastructure projects⁸, to be financed through sovereign borrowing, Serbia's public debt could reach 40-45% of GDP in the next four to five years. Public debt to GDP ratio during the transition period would expand by around 10 percentage points from its level at the start of 2010, but it would still be some 15 percentage points below the level allowed at the time of joining the European Monetary Union. In absolute numbers, public debt would grow by around four billion euros.

Taking into account intergenerational equity – any increase in public debt to GDP ratio from the present level of around 32% is justified only under the condition that future generations are left with property of greater value than debts, making it easier to service debts. Precisely, that means that the state, as a whole or to a maximum extent, borrows to finance public investments. State borrowing to finance public investments strengthens the need to implement standard procedures to select investment projects. Also, a cost efficiency control of investments is necessary as well as the control of quality of project implementation.

There are many reasons for which Serbia's public debt, at the end of the transition period, would be set at a lower level than the one set by Maastricht criteria. The first reason is a relatively high uncertainty over GDP growth in the coming years, which partially results from uncertainty over global economic recovery. The second reason is that the high public debt implies high spending on interest rate payments, which would hardly fit into public spending of 40% of GDP. The third reason refers to a need for some reserves, leaving the space for possible one-off increase in public debt at the moment when the government assumes financial liabilities in the process of denationalization or possible takeover of public company debts arising from sovereign guarantees, etc. Although it is believed that based on Balassa-Samuels

effect, the movement in the real exchange rate of the dinar over the long term will have a positive impact on public debt to GDP ratio, real dinar depreciation over the medium term is not excluded, temporarily resulting in a higher public debt to GDP ratio.

Achieving the mentioned public debt to GDP ratio is consistent with a gradual reduction of the fiscal deficit from around 4% of GDP in 2010 to around 2% of GDP in four to five years. To prevent the government borrowing to finance current spending, it would be good to introduce an additional restriction, which would determine a balanced current account of the Republic of Serbia, i.e. allowing the government to borrow only to finance infrastructure projects.

If the government's commitment to maintain present tax levels in the coming years remains in the coming years, allowing only changes regulated by international contracts (lower customs duties for EU partners and higher excise duties on cigarettes), the level of consolidated public spending is determined as a sum of consolidated public revenues generated by the existing tax system and the deficit of the consolidated state sector. Consolidated public revenues in the next several years will stabilize at the level of around 38% of GDP, which together with the fiscal deficit of 2% of GDP sets consolidated public spending at 40% of GDP. As a result, it will be necessary to lower the consolidated share of consolidated public spending in GDP by around two percentage points over the next few years, from 42% to 40% of GDP.

Apart from the need to lower consolidated public spending to GDP ratio, it is also important to make significant changes in their structure, to create additional space for public investment and interest rate payments⁹. The cost of interest rate servicing will rise from the present level of 1% of GDP to around 2% of GDP, while the implementation of infrastructure projects will increase the share of public investments in GDP by around two percentage points. As a result in the next few years, and along with the existing tax system, it is necessary to lower the share of current public spending (excluding spending on interest rate payments) by around 5 percentage points of GDP¹⁰.

A significant cut in public spending to GDP ratio means that all important public spending items (pensions, wages, purchases of goods and services, subsidies, etc) should grow at a slower pace than GDP in the com-

8 The state of infrastructure is one of the indicators placing Serbia among the weakest countries on World Bank and the World Economic Forum Competitiveness Ranking lists. Bad infrastructure is one of the most important effective barriers to long-term economic growth of Serbia. Therefore, the construction and upgrade of infrastructure is one of Serbia's key priorities in the next several years.

9 See Arsić, M. (2009), *Quarterly Monitor* no. 17.

10 See Arsić, M. (2009): it has been assessed that the explained adjustment would be very difficult to take place. Therefore, there is an alternative proposal to increase fiscal capacity by 1% of GDP through tax reform. Based on comparative analysis of tax system, it is estimated that the mentioned increase in taxes would not have a negative impact on Serbia's competitiveness.

ing years. It is especially important to define a rule for wage and pension growth during the transition period that would ensure that their share in GDP falls by 3–4 percentage points in the next few years. Pensions and wages account for 50% of consolidated public spending and had shown an excessive growth trend in pre-election times over the past decade. It is also necessary to cut the share of wages and pensions in GDP via different rules, such as:

- Wages and pensions can be indexed to inflation plus a half of the real GDP growth rate, or
- Wages and pensions grow by inflation rate + real GDP growth rate lowered by a certain percentage.

Also, an implementation of a law on state assistance would also steer the share of subsidies in GDP lower. The share of subsidies in GDP in Serbia is currently at around 2.5%, far above the EU average, where subsidies account for little more than 1% of GDP.

The introduction of fiscal rules in Serbia would cut down chances for fiscal expansion during pre-election times, but also for post-election fiscal expansion, resulting from meeting pre-election pledges.

Thus, fiscal rules would contribute to the strengthening of macroeconomic stability and greater credibility of the Serbian economy. An indirect benefit could be Serbia's improved credit rating and lower interest rates for Serbia's

Highlights 2. Informal Employment in Serbia

*Sonja Avlijaš**

This article sheds light on the dual character of the labour market and the structure of informal employment in Serbia in the course of 2000s, as well as the impact of the global economic crisis on those trends. Inadequate taxation of low wages and the failure of transition to create formal jobs in the private sector have directly contributed to growth of informal employment in Serbia over the past decade, despite high economic growth. The article also puts emphasis on the surprisingly procyclical behaviour of informal employment in times of economic crisis. Finally, general employment trends among vulnerable population groups since the start of the economic crisis are shown, considering their dominant presence in the informal labour market.

Informal Employment in 2000-2008

Due to the steady persistence of informal employment

borrowers in international financial markets. Over the long run, fiscal rules would create a significant barrier, preventing that consequences of possibly irresponsible policies of current generations are transferred to future generations. Of course, the introduction of fiscal rules offers no absolute guarantee for their consistent implementation, but their violation should have a negative impact on political ratings of those who violated the rules.

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in the first decade of the 21st century in Serbia, it is clear that the transition process, besides generating other negative impacts on the labour market, such as high unemployment, has also contributed to its duality. Namely, while one group of the employed (mostly in the public sector) enjoys very high employment security, the other group of labour market participants is characterised by flexible employment contracts, self-employment and informal employment, mostly in the so-called secondary labour market. Workers in the secondary labour market generally do not attain any social rights or employment security, and are typically characterised by low wages and low productivity, thus belonging to the most vulnerable population groups.

Informal employment represents a significant phenomenon in Serbia. Labour Force Survey (LFS) records show that more than one fifth of the labour force (when we include the agriculture sector), works informally. LFS treats as informally employed all persons without legal and social protection in employment (i.e. persons without written labour contracts, pension, health and unemployment insurance, etc), and this definition includes both persons who work informally in registered

* *Quarterly Monitor*, FREN.

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enterprises as well as those persons working in the informal economy (e.g. contributing household members in a family business).

Despite a partially different definition of informal employment to that of LFS, the Living Standards Measurement Survey (LSMS) from 2007 offers a more detailed structure of informal employment – showing an above-average presence of men, young people between the age of 15 and 24, workers older than 46, workers who had been made redundant after privatisations and company restructuring, as well as farmers and the self-employed.

Living Standards Measurement Survey captures an increase in informal employment between 2002 and 2007¹ from 28% to 35% of the total employment, with a concurrent decline in formal employment in both absolute and relative terms, despite high economic growth. At the same time, discrepancy between formal and informal labour markets widened – while in 2002 a net wage in the informal sector accounted for 91.6% of the net average wage in the formal sector, it fell to 65.8% of the average wage in the formal sector in 2007 (LSMS, 2002 and 2007). Thus, regardless of the fact that a proportionately larger number of persons worked in the informal sector in 2007 than in 2002, the wage bill in the informal sector (and its contribution to GDP) fell in relative terms. Considering that wage inequality between the formal and informal labour markets has significantly widened, even though there had been no major changes to the structure of their participants (gender, age, education, etc), informal employment has become a rather accurate predictor of poverty.

Even though formal wage employment in the industrial sector posted significant declines in the 2000s, as a result of privatisations and restructuring of enterprises, several other political and economic factors have led to persistence and growth of informal employment in Serbia:

1. Inadequate wage taxation, which has discouraged formalisation
2. Failure of privatisation and transition to create new formal jobs
3. Complex regulations and the high costs of doing business
4. Non-flexible labour legislation

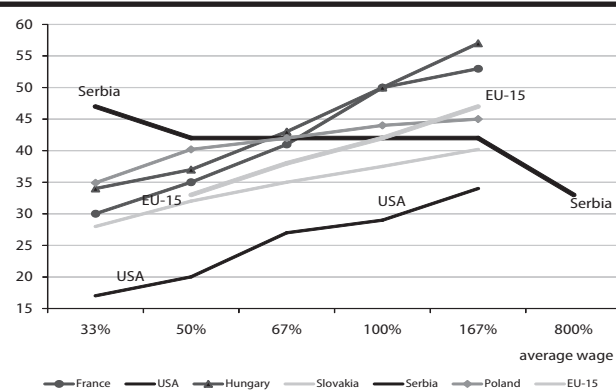
One of the key causes of labour market duality in Serbia was the 2001 fiscal reform, which introduced proportional rather than progressive income tax. This placed a higher tax burden on comparatively low wages, i.e. on poorer population groups, thus marginalising

them and pushing them into informality. Apart from the proportional income tax, the reform also introduced taxation of fringe benefits (such as hot meal and holiday allowances), even though those types of payments had offered additional protection to the least paid workers and a lower tax burden to their employers.

Despite further tax reforms in Serbia, labour is still subject to a low income tax (12%), a low personal tax exemption (around 6,000 dinars per month) and the absence of family deductions (for dependent family members) with very high social security contribution rates (total contributions for social, pension and health insurance amount to 35.8% of a gross salary). Furthermore, since the minimum base for social security contributions amounts to 35% of the average wage, while the maximum contributions base amounts to four average salaries, income taxation in Serbia is not only proportional but also regressive.

Graph 1 shows that in 2005, employers had to pay 47% of the total labour cost towards taxes and contributions for a worker who received only a third of an average wage, compared with 34% in taxes and contributions for a worker earning eight average wages.

Graph 1. Wage Burden (% of total cost for employer), 2005



Source: Arandarenko, M and Stanić, K, (2006): "Background paper on Labour Costs and Labour Taxes in Serbia for Serbia: Labour Market Assessment", World Bank.

Such taxation of labour in the course of 2000s has discouraged investments in labour-intensive sectors with low wages as well as the formalisation of informal activities due to high cost of entering the formal sector.

Further causes of the expansion of informal economy in Serbia lie in the failure of transition and privatisations to create new formal jobs in the private corporate sector, as well as complex and expensive administrative procedures that slowed down (formal) development of small and medium enterprises and entrepreneurship. Finally, labour legislation has impeded a certain degree of flexibility in recruiting and firing workers, although it was needed for a more dynamic adjustment of the private sector to the market economy. This is why the private sec-

¹ Unlike the Labour Force Survey, which is comparable only since 2008, the Living Standards Measurement Survey was conducted in 2002, 2003 and 2007, allowing us to follow the trend of informal employment through time.

tor was forced to seek alternative hiring forms, through freelance and temporary work contracts, and often even through keeping their workers off the records or paying their taxes and contributions on a minimum wage. One of the frequently cited examples of such lack of flexibility is incomplete regulation of part-time work, which would have had a positive impact on employment among women, particularly during their reproductive age.

Informal Employment in Times of Economic Crisis

Since the outbreak of the economic crisis, the *Quarterly Monitor* has frequently pointed to the labour market duality in its regular section “Employment and Wages”. While the primary labour market reacted to the crisis in line with expectations – there came to a significant adjustment of employment levels to GDP declines with a certain time-lag – the secondary labour market’s adjustment to the recession was much faster and stronger. Due to a more difficult process of firing workers with safe employment contracts, the labour market adjusted to the crisis through disproportionately fast disposal of marginalised workers, thus putting great pressure on the most vulnerable groups.

Table 2. Informal Employment Rates, 2008-2009

Age groups	October 2008	April 2009	October 2009
15+	23.0	22.1	20.6
15-64	20.6	18.5	18.2
65+	63.9	65.7	61.9

Source: Labour Force Survey.

Based on the LFS data, we observe a pro-cyclical character of informal employment in times of crisis, which has been declining along with the fall in GDP. Namely, informal employment for working age population fell from 20.6% in October 2008 to 18.6% in October 2009 (by around 100,000 persons). Data show that workers who lost formal employment did not go into informal employment, but rather to unemployment (mostly if they were 25 years of age or older) or into inactivity (if they were in the age group of 15-24). The fall in informal employment in times of crisis can be explained by the fact that the primary labour market gets protected through elimination of secondary and semi-formal jobs, that is, significant inflexibility of the formal labour market has meant a much slower adjustment of safer employment forms in times of crisis, leading to far greater declines in employment for marginalised groups. Such elasticity of informal employment versus GDP, which has been greater than the elasticity of formal employment (formal employment fell from 53.3% to 50% in the same period), supports our case for labour market duality.

Informal Employment of Vulnerable Population Groups

A more detailed analysis of LFS data for the period since the start of the economic crisis shows a dramatic decline in informal employment among the young (age group of 15-24), while informal employment for older groups (age 55+) remains high and fairly stable, as well as dominated by women. There was also a significant decline in relative wages and other work conditions, leading to accelerated marginalisation in all the more divided labour market, where informal jobs have become of lower quality and even less secure. At particular risk from labour market vulnerability are persons with multiple vulnerabilities, such as uneducated women in rural areas (which are exposed to gender, educational and geographic types of discrimination).

Findings of the study “The Status of Vulnerable Groups in the Serbian Labour Market” (2009, Arandarenko, Krstić), which analyses a large quantity of labour market² data, indicate that the economic crisis had different effects on employment of various vulnerable groups. While the economic crisis had no particular impact on the status of refugees and internally displaced persons, the rural population in southeast Serbia, as well as the rural population without agricultural land across Serbia, was exposed to a medium degree of vulnerability. Persons with lower education were moderately to severely hit in the labour market since the outbreak of the economic crisis, while there are no comparative data on Roma and people with disabilities to shed light on how they have been affected by the crisis, although they traditionally remain the most vulnerable labour market participants.

A high level of informal employment in Serbia, combined with the growing difference in wages between formal and informal sectors, and a deterioration of general working conditions, have led to increases in poverty and social exclusion of the population, with significant economic, social and political consequences. Therefore, improvements in labour market characteristics are crucial for political sustainability of reforms, as well as for the development of democratic principles and the social and economic prosperity in Serbia. Since it is impossible to “save” the labour market only and primarily through active labour market policy measures, it is crucial to focus on the key factors which generate labour demand, and which would result in the elimination of key administrative obstacles, such as high taxation of low wages or complexity of doing business. Finally, a positive impact on the labour market could come from the parallel implementation of policies and measures designed to increase social inclusion in other spheres of public importance, especially in health and education.

² Data from LFS, LSMS and RAD survey have been analysed, as well as those of the National Employment Service and special surveys financed by donors (for refugees and internally displaced persons).

SPOTLIGHT ON:

Implementation of the Anti-Monopoly Policy in Serbia: Hitherto Experiences and Recommendations

*Bojan Ristić**

The relevance of the anti-monopoly policy arises from the influence such policy has on consumer welfare, company productivity and national economic growth. All countries aspiring for EU membership are duty-bound to harmonize their anti-monopoly regulations and regulatory practices with EU standards, which indicates the broader importance of this policy for Serbia's rapprochement to the EU. Serbia opened a new chapter in implementing anti-monopoly policy in 2005, with the adoption of the Law on Protection of Competition envisaging the establishment of the Commission for the Protection of Competition. According to EBRD and World Economic Forum data, however, Serbia ranked below average in this field compared with the other countries in the region in 2009. The situation called for rapid changes in the national competition protection system and the Serbian National Assembly adopted a new Law on the Protection of Competition in 2009. The new Law comprises specific improvements over the prior law but its effects cannot be expected before late 2010. One of the chief shortcomings of the new legislative framework is that it does not define a criterion for determining a relevant market. Another major setback arises from the insufficient professional capacities of the regulatory authority to process all the cases submitted to it during the year. The following paper gives several recommendations on how to bolster the effectiveness of the national anti-monopoly policy by eliminating the identified shortcomings and increasing general public awareness of the importance of competition.

Introduction

The competition policy usually goes by the name of anti-monopoly policy. Apart from regulating monopolies, it also aims to restrict any behavior by undertakings that may jeopardize elements of effective competition. Consumers thus benefit from the low prices and high quality of products and a wide variety of diverse and high-quality products.

Anti-monopoly is a field where law and economics inevitably meet and complement each other. A positive economic analysis is the basis for formulating provisions comprising the legal regulatory framework. Therefore, the implementation of the competition policy must be considered from the viewpoints of both law and economics.

Protection of competition is organized at two levels within the European Union, at the level of the member-states and at the EU level. EU member-states have their own regulations and regulatory practices, which vary in different segments from one country to another and with respect to the regulations and practices of the EU as a whole.

What all EU member-states have in common is the obligation to harmonize their anti-monopoly legislations with the Treaty Establishing the European Community (EC), notably Articles 81 and 82 of the Treaty. The provisions in these Articles constitute fundamental principles of the competition policy. Given that they are binding for all EU member-states, they are also binding for countries aspiring to join the EU.

Article 81 prohibits cartels. Under EU law, a cartel entails various forms of agreements between undertakings with or without legal effect, which have as their object or effect the prevention, restriction or distortion of (effective) competition.

Article 82 governs independent acts by undertakings with a specific degree of market power. An undertaking with market power enabling it to behave to an appreciable extent independently of its competitors, customers and ulti-

* Faculty of Economics, University of Belgrade.

mately of consumers is said to be in a dominant position. Article 82 does not specifically prohibit the existence of a dominant position but its abuse reflected in directly or indirectly jeopardizing the achieved level of effective competition in a given market.

Western Balkan states, including Serbia, need to pass through the following two processes before admission to the EU: the Stabilisation and Association Process and the EU Accession Process. Serbia signed the Stabilisation and Association Agreement (SAA) in April 2008. Once it takes effect, Serbia will be duty-bound to enforce its provisions before it enters the EU Accession Process. The SAA, *inter alia*, includes instructions on the development of anti-monopoly legislation in Serbia in accordance with the above-mentioned Articles of the EC Treaty and interpretative instruments adopted by the Community institutions.¹ The very fact that the SAA includes the issue of protection of competition indicates the importance the EU attaches to competition. As Serbia draws closer to the EU, it may expect of the European Commission to increase its requirements regarding competition and insist not only on the harmonization of regulations but on the results of their enforcement as well.

Consumer welfare, company productivity and national economic growth are directly affected by competitive pressures in partial markets. In that respect, protection of competition needs to be accompanied by increasing competitive pressures in specific markets. The anti-monopoly policy, as the regulator of the existing level of competitive pressure, cannot, however, be held solely responsible for lack of competition in specific markets. Greater state leverage in protecting, improving and promoting the importance of competition in general is inevitable.

This paper opens with an analysis of the enforcement of the competition policy in Serbia and highlights the main features of the national regulatory system. The second section of the paper describes Serbia's ranking vis-à-vis countries in the region with respect to competition based on European Bank for Reconstruction and Development (EBRD) and World Economic Forum (WEF) data. The third section of the paper focuses on the features of the current competition protection system in Serbia, the recent legislative improvements and existing shortcomings. The author highlights the shortcomings to suggest how to further improve the national regulatory system. Not only would this have positive implications on economic competitiveness and living standards; Serbia would thus assume its EU accession-related obligations on time as well. The fourth section deals with the importance of continually monitoring and analyzing competition conditions in specific markets.

2. Serbia's Ranking vis-à-vis Countries in the Region

Table L1-1 gives the assessments of transition headway in competition policy enforcement in the 1996-2009 period for Serbia and the other countries in the region. The year 1996 was taken as the beginning of the time series, because that is when Serbia first engaged in the protection of competition by enacting the Anti-Monopoly Law, albeit without visible results until it was replaced by a new law in 2005.

According to EBRD methodology, transition indicator scores regarding competition policy range from 1 to 4.33: 1 means that a country has no competition legislation or institutions, while 4.33 means that a country boasts standards and performance typical of advanced industrial economies, effective enforcement of competition policy and unrestricted entry to most markets.

Table L1-1. Competition Policy Enforcement in Transition Countries, 1996–2009

Countries	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	2.00	2.00	2.00	2.00	2.00	2.00
B&H	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	2.00	2.00	2.00
Bulgaria	2.00	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.67	2.67	2.67	3.00	3.00
Croatia	2.00	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.67	2.67	3.00
Macedonia	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.33	2.33	2.33
Hungary	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.33	3.33	3.33	3.33	3.33	3.33
Montenegro	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	2.00
Romania	1.00	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.67	2.67	2.67	2.67
Serbia	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	2.00	2.00	2.00
Slovenia	2.00	2.00	2.33	2.33	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67

Source: EBRD (2009).

¹ See Stabilisation and Association Agreement between European Communities and Their Member States, of the one part, and the Republic of Serbia, of the other part, Article 73, para. 2, pp. 40-41.

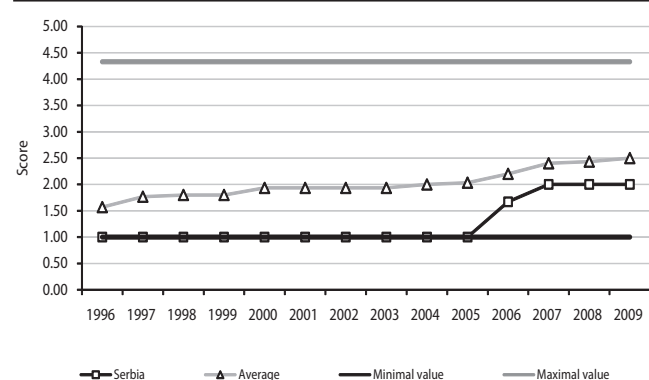
Implementation of the Anti-Monopoly Policy in Serbia: Hitherto Experiences and Recommendations

Serbia began making headway only in 2005, after the adoption of the Law on the Protection of Competition, which stipulated the establishment of the Commission for the Protection of Competition. Prior to the establishment of the Commission and pursuant to the Anti-Monopoly Law that was in force from 1996 to 2005, competition was within the purview of the Anti-Monopoly Affairs Department of the Trade, Tourism and Services Ministry. During this period, Serbia formally had a law and a regulatory authority for the protection of competition, but no results in that field.

Serbia made significant headway in 2006 and 2007 and then stagnated at score 2 during 2008 and 2009. Graphs L1-2 and L1-3 below have been designed on the basis of Table L1-1 to illustrate and corroborate the movement.

Graph L1-2 shows Serbia's progress in the 1996–2009 period. Serbia succeeded in rising from the bottom of the EBRD scale only in the past four years, during which it began fighting for preserving and improving competition conditions in national partial markets. Throughout the 1996–2009 period, Serbia remained below the average of (all) listed countries. The gap between Serbia's score and the average score considerably lessened over the last three years (2007, 2008 and 2009), during which the 2005 Law on the Protection of Competition was enforced. This fact, however, does not give rise to more than moderate optimism given that this average is quite low.

Graph L1-2. Serbia's Headway in Protection of Competition, 1996–2009



Source: EBRD (2009).

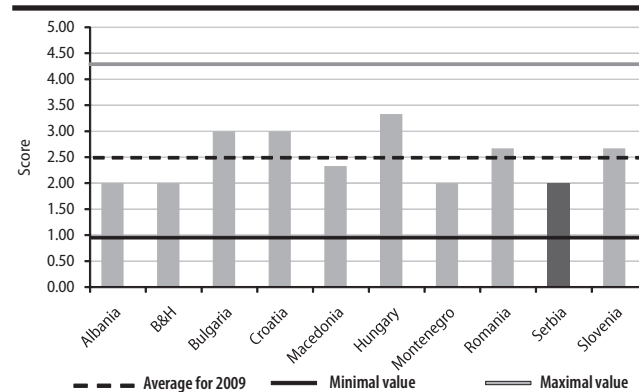
These data lead to the conclusion that Serbia lags significantly behind most of the countries in its immediate vicinity with respect to constituting and implementing a competition policy. As expected, EU member-states and Croatia made greater headway than Serbia. Serbia is obviously on the margins of the Balkans with respect to protection of competition, which can be characterized as a weak point of its further headway towards EU accession. Davos-based World Economic Forum (WEF) data on the competitiveness of national economies corroborate this conclusion.

WEF methodology ranks Serbia amongst economies in the so-called efficiency driven stage, which inter alia, depend on the intensity of local competition and the effectiveness of their anti-monopoly policies. For these purposes, the WEF calculates the extent of market domination and effectiveness of anti-monopoly policy sub-indicators, components of the (composite) Global Competitiveness Index (GCI).²

Table L1-4 shows the values of the sub-indicators and the rankings of the listed countries based on these sub-indica-

Graph L1-3 illustrates the degree in which Serbia developed its competition policy vis-à-vis the neighboring countries and Slovenia in 2009. Serbia, which was rated by a 2, is below the average of the observed countries in 2009, at the same level of development as Albania, Bosnia-Herzegovina and Montenegro. Within this group of countries, above-average values were recorded by Bulgaria, Croatia, Hungary and Slovenia, while Macedonia was rated below average (negligibly better than Serbia).

Graph L1-3. Level of Development of the Competition Policy in Serbia in 2009 (Compared with Neighboring Countries and Slovenia)



Source: EBRD (2009).

² More on the methodology for measuring the competitiveness of national economies and the structure of the Global Competitiveness Index in Vasiljević, D. (2009), Quarterly Monitor, No. 18, pp. 83–93.

tors on the list of 133 countries covered by the WEF survey.³ Serbia's standing will again be observed in comparison with the nearby countries. Graph L1-5 was designed on the basis of data on the values of the effectiveness of anti-monopoly policy sub-indicator (Table L1-4).

Table L1-4. Intensity of Local Competition and Effectiveness of Anti-Monopoly Policy

Countries	Effectiveness of anti-monopoly policy		Extent of market dominance	
	Index (1-7)*	Rank (out of 133)	Index (1-7)*	Rank (out of 133)
Albania	3.2	114	3.2	104
B&H	2.4	133	2.5	132
Bulgaria	3.4	99	3.7	67
Croatia	3.6	86	3.2	105
Macedonia	3.4	100	3.1	106
Hungary	4.1	54	3.7	70
Montenegro	3.8	72	3.8	66
Romania	3.9	66	4.3	39
Serbia	2.7	130	2.7	131
Slovenia	4.4	42	4.1	48
Netherlands	5.9	1	5.6	5

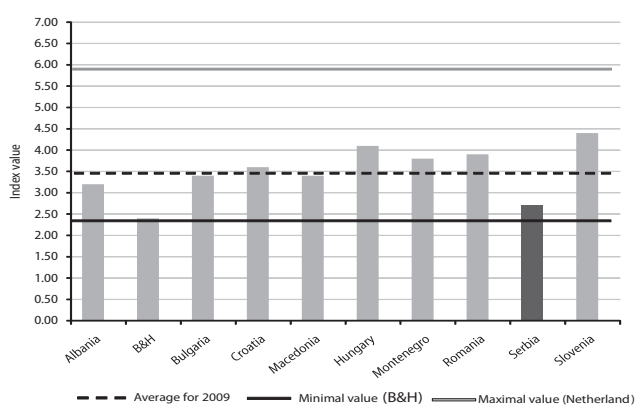
Source: WEF (2009).

* The values of all GCI sub-indicators and the GCI are normalized on a scale of 1 to 7.

The value of the effectiveness of the anti-monopoly policy sub-indicator in Serbia stands at 2.7, placing Serbia at an extremely low 130th place, below the average of countries in the region. Bosnia-Herzegovina is the only one with a negligibly poorer value, the lowest amongst both the observed countries (Table L1-4) and the 133 countries covered by the WEF survey. For the sake of comparison, the Netherlands, with 5.9, boasts the highest score and tops the list of 133 countries with respect to the effectiveness of anti-monopoly policy.

The poor results in the field of effectiveness of the anti-monopoly policy obviously constrain the competitiveness of the national economy. Serbia's competitiveness index stood at 3.8 in 2009 and it ranked 93rd on the list of 133 countries.

Graph L1-5. Effectiveness of the Anti-Monopoly Policy in Serbia in 2009 (Compared with the Countries in the Region)



Source: WEF (2009).

* The average does not include the Netherlands' value.

The unsatisfactory level of Serbia's economic competitiveness can also be attributed to the extremely weak intensity of competition in partial markets, where the differences between the observed countries are very similar to the ones between them with respect to the effectiveness of the anti-monopoly policy (Table L1-4). The monopolization of specific markets i.e. their considerable concentration is doubtlessly one of the implications of the inadequate enforcement of the competition policy.

It can be concluded that the World Economic Forum data confirm the conclusions drawn on the basis of the EBRD study. The following section of the paper will give an overview of the main features of the national competition protection system and its chief shortcomings, which can partly explain Serbia's current status vis-à-vis the countries in the region. Headway could be made if these shortcomings were eliminated.

3. Serbia's Competition Protection System

The history of anti-monopoly regulations in Serbia began with the adoption of the mentioned Anti-Monopoly Law in 1996, which was succeeded in 2005 by the Law on the Protection of Competition⁴. The 2005 Law was enacted

³ See WEF (2009).

⁴ Official Gazette of the Republic of Serbia, No 79/05.

after the numerous shortcomings of the Antimonopoly Law surfaced and as Serbia began assuming obligations within the EU stabilisation and accession process. The 2005 Law was replaced in 2009 by a new Law on the Protection of Competition. The ensuing paragraphs will focus on the new Law, which is considerably closer to EU regulation standards than its predecessor was.

Apart from the 2009 Law, protection of competition is also governed by three bylaws, which define and elaborate in detail provisions in Article 6, 12 and 63 of the Law, notably: the Decree on Criteria for Defining Relevant Markets, the Decree on the Content of the Request for Exemption from the Prohibition of a Restrictive Agreement and the Decree on Concentration Notification. The regulatory framework of the Law will be, however, complete only once all the other decrees envisaged by the Law are passed as well. This paper will not list all of them, just single out the extremely important bylaw yet to be enacted – the one that will lay down in detail the conditions for pronouncing measures to eliminate infringements of competition (Article 59).

3.1. Protection of Competition in the Context of the New Law

The Law on the Protection of Competition is the main anti-monopoly legislation in Serbia. It governs the protection of competition in the markets of the Republic of Serbia with the goal of achieving economic progress and the welfare of society, particularly to the benefit of the consumers, and the establishment, status, organization and powers of the Commission for the Protection of Competition (hereinafter: Commission).⁵

The phrase “particularly the benefit of the consumers” indicates that the welfare of society primarily entails the interests of the consumers and then everything else defining society as a whole. The similarity with the regulatory goal aspired to by the European Commission - to protect effective competition (i.e. everything the concept entails and aimed at consumer protection) - is obvious. To enable the fulfillment of the goal in practice, the Law envisages the establishment of a Commission for the Protection of Competition and precisely defines its status, organization and powers.

The Law regulates in detail prohibited agreements and introduces a new term in Serbian law - “restrictive agreements”, which entail agreements between undertakings the object or effect of which is the considerable prevention, restriction or distortion of competition. Restrictive agreements also entail various forms of association and merger of undertakings in the market, which will presumably result in the considerable prevention, restriction or distortion of competition.

A major novelty in the new Law regarding the regulation of mergers (concentration) of undertakings is the introduction of the merger permissibility presumption.⁶ The Law, however, lists in which instances concentration shall not be permitted. Pursuant to the concentration permissibility presumption, strengthening the dominant position by a merger shall not per se be considered grounds for prohibition but will be perceived as one of the potential indicators that the merger may result in the infringement of competition.

The enforcement of the 2005 Law showed that the Commission needed to be empowered to pronounce additional measures against parties to concentration found in breach of competition, including the deconcentration remedy. Under the Law, this remedy shall be pronounced against a party to concentration undertaken in contravention of a Commission decision and shall entail division, divestiture or contract annulment in order to re-establish effective competition.

The Law also introduces “behavioral” and “structural” remedies aimed at eliminating the effects of the established competition infringement. Behavioral remedies shall be imposed on parties to a merger in the event the Commission found them in breach of competition rules; these remedies are to eliminate the infringement and preclude similar infringements in the future. Behavioral remedies shall be pronounced against parties to a merger in the form of an order imposing on them specific behavior or prohibiting specific behavior, which has or will result in the infringement of competition in the given market. Structural remedies shall be applied where behavioral remedies would not be effective. This happens where there is a substantial risk of an infringement that derives from the change in the structure of the undertaking after the merger. In such circumstances, the Commission is empowered to pronounce a remedy ordering the restoration of the initial structure, which would not result in an identical or similar infringement.

⁵ Article 1, Law on the Protection of Competition, *Official Gazette of the Republic of Serbia*, No 51/09.

⁶ In the context of the 2009 Law on the Protection of Competition, “concentration” shall entail all forms of mergers regardless of whether horizontal, vertical or conglomerate mergers are at issue.

One of the chief novelties in the new Law includes provisions empowering the Commission also to pronounce remedies for the protection of competition, not only to investigate and establish infringements of competition. This increases the role and importance of this regulatory authority, as the most competent body in the field of protection of competition. The question, however, arises whether the Commission is able to rise to the demands the new Law sets it, given its insufficient professional capacities and the shortcomings of the Law precluding its consistent implementation.

3.2. Capacities of the Commission for the Protection of Competition

The Commission's capacities largely affect its ability to enforce the law efficiently. Table L1-6 gives comparative data on the total number of cases and professional staff of the Serbian, Croatian and Hungarian regulatory authorities over the past three years. The total number of cases in one year includes (1) all pre-merger notifications, (2) abuse of dominant position cases, (3) prohibited agreements, and (4) expert opinions on legal provisions issued at the request of the parties. Given that the new Serbian Law on Protection of Competition came into effect in November 2009, the data concerning Serbia refer to the period in which the 2005 Law was implemented.

This simple illustration leads to the conclusion that the number of pre-merger notifications per staff member in 2007 was nearly 4.1 times higher in Serbia than in Croatia and nearly five times higher than in Hungary. Accordingly, one may conclude that the capacities of the Serbian Commission are much smaller than the capacities of the Croatian and Hungarian authorities. The Commission's workload was only negligibly lighter in 2008.

Table L1-6. Number of Pre-Merger Notifications per Employee in the Regulatory Authority Professional Services

Countries	Data	2006	2007	2008
Serbia	A (Total)	111	178	189
	B (Concentrations)	56	130	137
	C (Employees)	15	17	21
	B/A (%)	50.45%	73.03%	72.49%
	A/C	7.4	10.47	9
Croatia	A (Total)	123	74	94
	B (Concentrations)	30	29	35
	C (Employees)	27	29	35
	B/A (%)	24.39%	39.19%	37.23%
	A/C	4.56	2.55	2.69
Hungary	A (Total)	180	158	116
	B (Concentrations)	43	46	37
	C (Employees)	66	75	/*
	B/A (%)	23.89%	29.11%	31.90%
	A/C	2.73	2.11	/*

Sources: Commission for the Protection of Competition (2007), (2008), (2009); Croatian Competition Agency (2009); Hungarian Competition Authority (2007), (2008).

* Data on the number of professional staff in the Hungarian Competition Authority in 2008 were unavailable at the time this text was written.

The Table clearly shows that pre-merger notifications account for most of the Serbian Commission's annual workload, which is not the case in the other two countries. The Serbian Commission was swamped by such notifications, the most complex of which it has to investigate under the law. Logically, most professional staff have spent most of their time processing these cases.

The 2005 Law had set the merger reporting threshold much too low and the Commission had been unnecessarily burdened by a huge number of reports it had to process. The numerous minor mergers had prevented the Commission from focusing on the main cases carrying major risks of infringement of competition. This is why many cases were reviewed in a summary procedure and the Commission conducted thorough investigations only in a small number of cases.

The problem arising from insufficient capacities can be resolved by cutting the number of pre-merger notifications and reducing their share to an acceptable level, like in the countries in Table L1-6. This can be achieved by raising the pre-merger notification threshold and by simultaneously increasing the number of professional staff in the Commission. What results can be expected in the future? The new Law raises the notification threshold considerably

and the Commission will probably not be as burdened by minor concentration cases. Given that the Law came into force in November, the effects of the higher notification threshold on the number of reports will be felt only in late 2010. Of course, the Commission's capacity to successfully enforce the competition policy will be impossible unless it hires more professional staff.

3.3. Main Shortcomings of the Existing Legislation

Although the 2009 Law on the Protection of Competition is harmonized with EU regulations to a greater extent than its predecessor, the regulatory system based on the Law still suffers from specific fundamental shortcomings. The ensuing paragraphs will focus on the fundamental shortcomings regarding the following two key issues of standard regulatory procedure in the EU: (1) definition of a relevant market, and (2) measuring concentration within a relevant market.⁷ The definition of a market involves the identification of the market players directly competing against an undertaking or a group of undertakings, which are the subject of regulation. Once the market is defined, concentration measurement serves to establish the intensity of competition in it and the changes in intensity occurring under the influence of the given case.

3.3.1. Definition of a Relevant Market

A regulatory analysis of any act infringing on market competition calls for the precise definition of the market scope considered relevant to it. An imprecisely defined market may lead regulation in a direction that differs from the goal the regulator aspires to and render meaningless the further development of the regulatory process. The definition of a relevant market entails its determination with respect to the product (relevant product market) and with respect to geography (relevant geographic market). Therefore, definition of a market will result in the identification of the direct competitors of companies which are the subject of regulation in accordance with their geographic location and the features of the products they are selling (vis-à-vis the analyzed companies).

A relevant market is defined by applying the test of small but significant increase in price by an assumed (hypothetical) monopolist (hereinafter: hypothetical monopolist test) which is standard practice in the EU and the USA. A small but significant increase in price entails an increase of at least 5% and at most 10%, while a longer-term increase entails a non-transitory increase up to one year.⁸ The application of the test results in the definition of the relevant market of the product or group of products sold in a specific geographic area.

Box 1. Hypothetical Monopolist Test

A hypothetical monopolist is an assumed (fictional) company considered to be the only seller of a product in a specific territory. A (5-10%) price increase is introduced by the regulator to assess what would happen to the hypothetical monopolist's sale volume, i.e. profits if the increase in price were actually to occur.

When defining the relevant market of a product, the test is conducted by assuming a specific increase in the price of the analyzed product. If it is assessed that the profit of the hypothetical monopolist would increase, the test is fulfilled, which means that the said product independently constitutes the relevant market, which "is beneficial to the monopolist". The test criterion is thus met already in the first iteration. In the event it is assessed that profits would fall, the market of the product cannot be considered relevant, wherefore a new iteration of the test must be conducted. In the next iteration, a product considered to be the closest substitute for the product, for which the price increase has already been simulated, is added to the market (for instance, short life milk is added to long life milk, olive oil is added to sunflower oil, et al), after which the test is again applied. The initial product is joined by its closest substitute because elimination of competition between products will increase the probability that the increase in the price of the initial product will be profitable (if the price of the added substitute remains unchanged). The procedure is applied iteratively until the narrowest set of products meeting the test profitability criterion is formed and the relevant market is thus defined.

7 See criticisms of the 2005 Law, which partly apply to the valid legislation in the Anti-Corruption Council's *Comment of the Law on the Protection of Competition, Official Gazette of the Republic of Serbia* No. 79/05 and Skopljak, Z. (2007), *Quarterly Monitor*, No. 8, pp. 65–71. See an analysis of the new legislation in Džudžević, E. (2009), *Quarterly Monitor*, No. 17, pp. 71–75.

8 See: European Commission, 1997, *Commission Notice on the Definition of the Relevant Market for the Purposes of Community Competition Law*, p. 3.

Once the narrowest set of products constituting the relevant product market is defined, one needs to define the smallest territory geographically relevant to their sale. For instance, if it is established that long life milk is a relevant product market, the question arises whether the territory of the City of Belgrade and all manufacturers and sellers of the product in it constitute the relevant geographic market. This is why it is necessary to assess whether the sale of long life milk in the City territory would be profitable for the hypothetical monopolist if the price of the product were increased. If it is established that the hypothetical monopolist could achieve a profitable increase in price, the territory of the City of Belgrade may be considered a relevant geographic market. If it is not, the test is to be applied again after the market is expanded in the second iteration by adding to it a new geographic location (e.g. the territory of the municipality of Pančevo). The smallest market in terms of geography allowing the hypothetical monopolist to achieve a profitable increase in price is considered a relevant geographic market.

Neither the Law nor the Decree on Criteria for Defining Relevant Markets stipulate the definition of both dimensions of the relevant market by the application of the hypothetical monopolist test. Instead, a relevant market is defined as a set of goods and/or services which are regarded as substitutable by the consumers by reason of the products' characteristics, their intended use and their prices. It transpires that a relevant market may include all products substitutable in some way, which is absolutely incorrect. Such a definition bears the risk of defining a relevant product market too narrowly or too broadly, because there is no requirement to apply the hypothetical monopolist test. A similar problem arises with respect to the definition of the relevant geographic market.⁹

The Decree lays down criteria for assessing the possibility of substituting one product by another, either the possibility of consumers opting for other products (demand substitution) or the possibility of other manufacturers supplying the product within the short term without incurring significant additional costs (supply substitution). The assessment of the possibilities to substitute supply and demand are the main inputs for applying the hypothetical monopolist test but the Decree does not mention the test at all. It is thus unclear how an analysis of supply and demand substitution can be used to define a market.

The new Decree represents a step backward compared to the previous Decree,¹⁰ which stipulated the application of the hypothetical monopolist test, because the new Decree does not include this fundamental principle for defining a relevant market. Instead of improving the prior Decree by elaborating the application of the hypothetical monopolist test in greater detail, the new Decree does not even mention it, thus allowing for various definitions of a market on a case to case basis. The Decree gives a definition of a relevant market but does not lay down how it is to be determined. Any other criticism of the new Decree pales before this shortcoming. It could be said that the Commission has been imposed the task of itself finding a way to define a relevant market notwithstanding the valid regulations, because it cannot do so by interpreting the valid Decree.

What are the consequences of defining a market incorrectly? If a market is defined too broadly, it may transpire that a company does not have a dominant position in it although it clearly would if the market were adequately defined. If the market is defined too narrowly, a company may be declared dominant in it although it actually is not. Both cases carry the risk of violating effective competition.

3.3.1.1. An Illustration of Domestic Regulatory Practice

The well-known example of the horizontal merger of Primer C (part of Delta Group) and C market illustrates well how the definition of a market can affect the conclusion on the dominance of an undertaking. The merger involved the companies Delta maksi on the one hand and C market and Pekabeta on the other. The following paragraphs will show results of two independent investigations of the case arriving at different market dimensions from the aspect of products in the field of (predominantly) food retail sale in non-specialized shops, which the above-mentioned companies belong to as well. What is common to both analyses is that they consider the territory of the City of Belgrade as the relevant geographic market.

⁹ Other methods not departing from the hypothetical monopolist test may also be used to define a relevant geographic market, such as the *Elzinga-Hogarty* test, isochronous curve analysis, time elasticity analysis, et al. Developed EU and US regulatory practices consider these methods supplementary and use them to check the hypothetical monopolist test results.

¹⁰ *Official Gazette of the Republic of Serbia*, No 94/05.

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In short, where retailing of consumer goods is at issue, the definition of the relevant product market and thus the definition of the market players in the same relevant market depend on the assessment of the type of retail services directly competing against each other. For instance, do shops and small self-service stores belong to the same relevant market as supermarkets, do cash and carry establishments compete with shops, small self-service stores and supermarkets, etc? Table L1-7 gives data on 2006 annual revenues of retailers in the territory of the City of Belgrade.

Table L1-7. Market Shares of Parties to Concentration and Their Competitors (Narrower and Broader Product Market Scopes)

Market participants	Revenue (EUR)	Share I	Share II
1. Delta Maksi	191,500,000	33.55%	18.82%
2. C market	132,000,000	23.13%	12.97%
3. Pekabeta	38,800,000	6.80%	3.81%
Total (1-3)	362,300,000	63.43%	35.60%
4. Merkator	38,600,000	6.76%	3.79%
5. Rodić	37,400,000	6.55%	3.67%
6. Veropulos	24,000,000	4.20%	2.36%
7. Si Market	11,500,000	2.01%	1.13%
8. Jabuka	11,800,000	2.07%	1.16%
9. Idea	80,000,000	14.02%	7.86%
10. Višnjica	5,200,000	0.91%	0.51%
Total (1-10)	570,800,000	100%	56.08%
11. City green markets	56,361,860		5.54%
12. Metro	35,238,126		3.46%
13. Total of 161 enterprises (52110)*	64,739,632		6.36%
14. Total of 191 enterprises (52120)*	45,650,164		4.49%
15. Total of 3863 unspecialized shops (52110 i 52120)**	244,903,417		24.06%
Total (1-15)	1,017,693,203		100%

Sources: Commission for the Protection of Competition (2007); Đuričin, Lončar and Rajić (2008).

* Codes in the register of economic activities. Defining the set of unspecialized retailers selling predominantly food, tobacco and beverages.

** Regards unspecialized independent shops registered for the listed activities in the register of economic activities.

According to the first analysis,¹¹ the relevant market scope entails ten key market players in the territory of the City of Belgrade (unspecialized shops such as self-service stores, supermarkets and hypermarkets). Data on their annual revenues lead to the conclusion that the parties to concentration together have a market share of 63.43%, which is enough to claim that they have a dominant market position under the valid Law.¹²

However, the second definition of the market¹³ leads to an opposite conclusion. The second analysis departs from the same data on the revenues of the key market players but expands the product market scope by including other companies and shops registered for unspecialized retail (mostly of food, tobacco and beverages), city green markets and Metro company facilities registered for cash and carry trade. As opposed to the first analysis, where the whole relevant market was divided amongst the ten major market players, the second analysis showed that these players altogether had a 56.08% share of the whole market. According to this broader market definition, the parties to concentration were found to have a 35.6% share of the market, which is not considered a dominant market position.

This example illustrates the most common problem arising in the definition of a relevant market. The two analyses of the same case of concentration obviously lead to diametrically opposite conclusions. The absence of criteria for defining a relevant market may provide the party, which is the subject of regulation, with grounds to claim that any definition of the market it uses to defend itself is the correct one, which may result in baffling court disputes. The question remains which party will be the first to convince the court that its definition is the right one, because every definition can be valid in its own way.

3.3.2. Concentration Measurement in the Relevant Market

The current legislation does not envisage the use of the Herfindahl-Hirschman Index (HHI) to measure the levels and changes in market concentration at a defined relevant market.¹⁴ The HHI is the best known index in the field

11 Commission for the Protection of Competition (2007).

12 Under the Law, an undertaking shall have a dominant position in the relevant market if its share of the market stands at 40% or more.

13 See: Đuričin, Lončar and Rajić (2008).

14 The Herfindahl-Hirschman Index is the sum of the squares of the market shares of all suppliers in the relevant market. For n companies in the market, $HHI = s_1^2 + s_2^2 + \dots + s_n^2$. Market shares are usually converted from percents to numbers during squaring (e.g. 15% is converted to 15) so that the index value ranges from 0 to 10,000.

of anti-monopoly and its non-inclusion is unjustified. Analysis of concentration based on the HHI is an inevitable instrument for regulating horizontal mergers in developed EU and US regulatory practices.

Like with the definition of a relevant market, the Law lets the Commission apply at its own discretion rules not based on the law. The Commission's reports on horizontal merger investigation results indicate that the Commission actually applies the HHI. The Commission commendably applies a rule based on the HHI, which is economically logical. However, the Law and the relevant by-laws do not even mention specific economically logical rules and there is always the risk of a valid Commission conclusion being qualified as legally groundless if the regulated case goes to court. The problem arising from the absence of a concentration criterion and the regulation rules based on it could partly be eliminated (without amending the Law and the relevant decrees) by incorporating the criterion in the guidelines on the regulation of horizontal mergers that the Commission could issue.

Given the visible increase in the Commission's discretionary powers in the 2009 Law, which entrusts it with adopting guidelines and instructions on the enforcement of the Law (Article 21), it may be concluded that the Commission may independently lay down guidelines for regulating horizontal mergers. Such guidelines would be as effective as any other piece of subsidiary legislation, because they would reflect the regulatory practice of the Commission, whose role is precisely defined by the Law. When formulating the guidelines, the Commission needs to ensure that their purpose is not to substitute the Law but to define the practical implementation of the regulatory procedure in accordance with the law. The purpose of the guidelines formulated by the Commission would be to give the competent courts and public at large an answer to the question on how the Commission conducts regulation in practice. Guidelines play an extremely important role in the EU and the US because they elaborate in greater detail than the legislation the course of the regulatory procedure and the procedure in which the "independent" regulatory authority establishes infringement of competition.

The example in Table L1-7 will now be used to illustrate the application of the concentration test based on the HHI, to corroborate that different definitions of the market lead to different results in this respect as well.

Data in Table L1-7 show that the concentration test for the analyzed example will yield very different results depending on the different definitions of the market. In the first analysis, which found that the concentration led to the

Box 2. Concentration Test by Applying the Herfindahl-Hirschman Index

Given that the Index is calculated by summing the squares of the individual market shares of all the firms in the relevant market, higher index values signify greater market concentration. Squared higher market shares yield disproportionately greater contribution to market concentration than lower market shares. The concentration test regarding horizontal mergers and conducted by the application of this Index requires the definition of the concentration levels before and after the merger and the determination of the difference between them (Δ HHI, known as the delta or "concentration increase"). The regulator assesses the potential risks the merger may pose to competition in the given market on the basis of the combination of the assumed post-merger HHI level and the ensuing concentration increase.

A low concentration zone exists if the post-merger *HHI* value does not exceed 1000 in the relevant market. The announced merger is not considered detrimental to market competition in the low concentration zone regardless of the concentration increase. Mergers within this zone usually are not investigated further and may be approved.

A moderate concentration zone exists if the post-merger *HHI* value ranges between 1000 and 2000. In this case, the merger should be carefully reviewed only once the value of concentration increase exceeds 250. If the value of concentration increase is under 250 but within the moderate zone, the regulator takes a view identical to the one that would be taken if a low concentration zone were at issue.

All *HHI* values exceeding 2000 after the merger signify a high concentration zone, which the regulatory authorities need to react to if concentration increase exceeds 150. The regulatory authority may take the same view it would as if a low concentration zone were at issue with respect to all concentration increase values under 150 in the high concentration zone.

These thresholds are the official view of the European Commission with respect to the concentration test. See: *Official Journal of the European Union* (2004/C 31/03), p. 7.

dominant market position of the merged undertakings, the post-merger HHI value stands at approximately 4,340 and the concentration increase at 2,323. According to this analysis, the merger was conducted in the high concentration zone with the concentration increase considerably exceeding 150, the threshold for this zone.

The second analysis, which gives a broader definition of the market, leads to the conclusion that the post-merger HHI value stands at approximately 1377, if the calculation takes into account the key market players (data in rows 1-10 in Table L1-7) with the Metro Company.¹⁵ The concentration increase in this case stands at approximately 742. Based on the HHI value, the market can be characterized as moderately concentrated after the concentration, which does not coincide with the finding in the first analysis. It should, however, be borne in mind that the concentration increase in this case as well exceeds by far the 250 threshold for this zone.

Different market definitions obviously lead to different concentration test results, which significantly determines the further course of regulatory investigation. This additionally corroborates the necessity of consistently defining the relevant market.

4. Analysis of Competition Conditions in Specific Markets

The hitherto analysis leads to the conclusion that not enough importance is attached to the protection of competition in Serbia. Apart from reforming the regulations and boosting the Commission's professional capacities, efforts need to be invested to increase public awareness of the positive effects competition has on elements of societal welfare. How?

One way would be for the Commission and other independent organizations to continuously monitor competition conditions in specific markets. The intensity of and changes in competition in select (partial) markets should be monitored and published just as data on economic growth, inflation, unemployment and other macroeconomic indicators are. Furthermore, monitoring and analysis of competition conditions is one of the Commission's legal obligations.¹⁶

The analyses would be conducted to indicate the intensity of competition in selected partial markets and the changes occurring in that field over time. The information would help form a picture of the level and changes in the monopolization of specific markets arising from various forms of concentration, new entries to or departures from the market. Continuous monitoring of competition should not be perceived as an exclusively institutional issue, to be conducted only by the Commission for the Protection of Competition. Given the impact of competition on societal welfare, the general public ought to be informed of the developments in the area, through expert and independent analyses. What are the direct benefits of such analyses?

First, alerting to considerable monopolies over specific markets would be compatible with the institutional efforts the Commission has been investing by enforcing the law and would help raise public awareness of the importance of protection of competition. Alerting to problematic markets would give the public grounds and motive to exert pressure to prevent monopolistic behavior by companies. Second, data in the analyses would enable the Commission to proactively protect competition before any infringement of competition actually occurs. Third, companies would find the information a practical and above all useful input in their business planning. For instance, companies planning to enter a market would have preliminary insight in the features of the target markets and the changes occurring in them over time. Moreover, companies planning mergers would be able to assess their capacity to pass the so-called "concentration test" conducted by the Commission and obtain formal consent to integrate.

¹⁵ The logic of calculating the *HHI* allows for eliminating data regarding minor market participants from the calculation because the individual squaring of their shares yields nearly infinitesimal values (e.g., $0,01^2 = 0,0001$), which do not significantly contribute to the level of market concentration.

¹⁶ In its 2008 Annual Report, the Commission states that these issues were not the focus of its activities. The reasons it lists reinforce the conclusion that the Commission's capacities are, to put it mildly, insufficient, and that the Commission is technically unable to optimally fulfill all the demands set by the law.

5. Conclusion

The analysis in this paper was aimed at promoting the importance of implementing the anti-monopoly policy in Serbia for consumer welfare, company productivity and the country's economic growth, as well as for the upcoming EU integration process. The European Commission will doubtlessly closely monitor protection of competition during the implementation of the SAA. It would thus be desirable if preventive steps were taken in the field before the SAA formally comes into force.

EBRD and WEF 2009 data lead to the conclusion that Serbia is in an extremely unfavorable position compared with other countries in the region as regards the results of implementing the anti-monopoly policy and the intensity of competition in its partial markets. Serbia's results rank it at the bottom of the list of countries with which it is traditionally compared. This fact is sufficiently indicative of the necessity to make changes to increase the effectiveness of the invested efforts to reflect the importance the protection of competition has for living standards and the country's international integration.

The Serbian National Assembly in 2009 adopted a new Law on the Protection of Competition, which is considerably harmonized with EU regulations and regulatory practice. One of its chief improvements entails the visible increase in the discretionary powers of the Commission, the competent institutional body charged with the implementation of the Law. The Law also expands the scope of remedies the Commission may pronounce in the procedures it conducts, such as the deconcentration remedy and structural and behavioral remedies. These remedies will not only help eliminate established infringements of competition; their very existence has a deterrent effect. The Law also commendably raises the concentration notification threshold and will lead to a cut in the number of cases the Commission has to process during the year. In general, the Commission will thus be able to focus on the more relevant cases and fully conduct a greater number of regulatory investigations than it has so far. The cut in the number of cases the Commission has to investigate will positively affect its capacity, which this paper identifies as a technical obstacle to its efficient enforcement of its legal obligations.

Serbia's efforts in 2009 cannot be ascribed to the implementation of the new Law, which came into force in November, and the effects of the mentioned legal improvements cannot be expected before late 2010. Given some of the fundamental shortcomings of the current regulatory system, however, one should not have high expectations about these effects in the short term.

The crucial shortcoming of the new Law is the arbitrariness it allows in the definition of a relevant market. This arbitrariness is, for the most part, caused by the non-inclusion of the hypothetical monopolist test, the main conceptual framework for defining relevant product and geographic markets. The paper gave an example of a merger in Serbia to highlight how important an adequate definition of the market is for the regulatory process. The example illustrates how different definitions of the market may lead to diametrically different conclusions about the same case.

Moreover, the valid legislation also fails to lay down the application of a concentration test by using the Herfindahl-Hirschman Index, an extremely useful regulatory tool in appraising horizontal mergers. The shortcoming can be addressed without amending the law, by following the example of the EU and the US and incorporating the test in the guidelines on the regulation of horizontal mergers, which the Commission is entitled to lay down.

Apart from amending the anti-monopoly regulations, it is also necessary to continuously monitor and analyze competition conditions in specific markets. The publication of such analyses would raise public awareness of the importance of protection of competition, which would aid the institutional efforts the Commission has been investing by enforcing the law.

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Local Investment Multipliers in Serbia

Duško Vasiljević*

Sanja Govorušić**

This paper gives an overview and analysis of the main results of a research conducted in 2008 and 2009 by the Center for Advanced Economic Studies (CEVES) funded by the USAID Municipal Economic Growth Activity (MEGA) Program. The research had two objectives: (1) to analyze and measure the direct and indirect effects of investments in specific local governments, i.e. to measure the multiplication of every euro invested at the local level, and (2) to analyze and measure the direct and indirect effects of investments in specific economic sectors, i.e. to measure the multiplication of every euro invested in a specific industry. The results corroborate the initial premise – that indirect investment effects are often as important as direct investment effects and in some cases outweigh them. Investment incentives are, however, currently focused primarily on direct investment effects (e.g. number of new jobs) and both central and local authorities lack a developed methodology to monitor indirect investment effects.

1. Introduction

Investment incentives and policies focused on the development of small and medium-sized enterprises, clusters, supply chains et al have become very topical in the past decade, both in Serbia and elsewhere. This trend is particularly visible in developing and transition economies. The global economic crisis has in the past few years, however, also prompted the developed countries to focus their economic policies on maximizing investment multiplier effects to generate greater economic growth and ensure development.

A lot of attention has over the last few years also been devoted to the economic policies of cities and municipalities and other lower government levels and improving their capacities to attract foreign and domestic investments. Local politicians often bear the burden and obligation to ensure the opening of new jobs in their communities, to improve the business climate in their municipalities and to encourage local economic development.

Effects of such new investments may vary. Many investments, particularly foreign direct investments (FDIs), have considerable impact on the local economy, because they actually create new job opportunities, good salaries for the workers, investments in new technologies, etc, and often also lead to the development of local companies. These effects are known as direct investment effects. But, investments and spending do not necessarily trigger economic development. For an investment to generate additional economic activity, the money has to be “turned over” several times and stay in the local economy as long as possible. These effects, the effects the initial investment has on the whole chain of suppliers, are known as indirect investment effects. In many situations, the money simply “leaks out” of the local economy (through the purchase of goods and services from suppliers outside the local economy) and does not have major impact on the development of a specific industry or region. This research aimed at measuring the absorption capacities of specific Serbian economic sectors and cities and the multiplier effects of various investments and at identifying where the money leaks out and how to prevent such leakages as much as possible and use the money to stimulate economic development.

As mentioned, the research comprised:

- (1) An analysis of the direct and indirect effects of investments in specific *local self-governments*, i.e. measurement of the multiplication of every euro invested at the local level, and
- (2) An analysis of the direct and indirect effects of investments in specific *economic sectors*, i.e. measurement of the multiplication of every euro invested in specific industries.

The research actually comprised two sub-researches applying very similar methodologies but requiring different sample design methods and slightly different implementation and analysis. The first sub-research comprised collec-

* Center for Advanced Economic Studies (CEVES).

** Deputy Team Leader of the USAID Program Municipal Economic Growth Activity (MEGA) Municipal Capacity Building Program.

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ting data for three local self-governments - Subotica, Kruševac and Šabac. The second sub-research involved collection of data in the following five economic sectors: (1) textile and apparel industry (2) food processing industry, (3) wood processing and furniture industry (4) chemical industry and (5) tourism.

The research results showed that the multiplier value was the highest in Kruševac – 2.51, and that it stood at 1.81 in Šabac and at 1.75 in Subotica. With respect to the industries, the research showed that the highest multiplier value was generated in the food processing industry – 3.09, that tourism and the textile and apparel industries had somewhat lower multiplier values, while the chemical and wood processing industries had the lowest values (around 2.5).

The rest of this text is organized in the following way. We will first explain the *investment multiplier concept* in greater detail. Then, we describe the *methodology* applied in the research. We proceed by presenting the *research results* and finally, we formulate our main conclusions and recommendations.

2. Multiplier Concept and Motivation for the Research

The investment multiplier concept is based on the notion that every investment has not only direct but indirect effects on economic activity as well. *Direct investment effects* comprise the very production in the new company (or business project) and the new jobs opened in the company. Apart from these direct effects, the new company – or a new business project launched by the investment – also affects overall demand in an economy. The new company buys raw materials and intermediate goods from other companies and it pays out salaries to its workers, who spend them to buy other goods and services. All these are considered *indirect investment effects* (Marcin, 2008). The economic activity generated by the initial investment is thus practically multiplied and has greater overall effect on the economy.

Our research focused on this type of indirect effects, which can be called *money transfer effects* (Mencinger, 2003). There are other types of indirect effects impacting on local economy that are also extremely important, e.g. the effects of “spillover” of know-how, technological and management processes (Narula and Marin, 2005). These effects may trigger greater productivity in the whole economy. The OECD (2003) lists some other channels by which investments, particularly FDIs, indirectly trigger increase in productivity, notably: economic restructuring, bolstering competition and better international trade integration of the local economy. Data published by Neuhaus (2005) testify of the importance of FDIs - Neuhaus assesses that FDIs were responsible for three-quarters of economic growth in East Europe transition economies in the 1995-2003 period.

The initial direct investment effect on economic activity is practically multiplied by indirect effects. Indirect effects need to be understood and quantified given that their importance frequently outweighs that of direct effects. One of the objectives of the research was to do just that – assess the indirect effects of investments in different sectors and different municipalities.

The intensity of the investments’ multiplier effect on the local economy depends on a number of factors related to the quality and development of supplier networks and the quality of the available human capital. Empirical research shows that the multiplier effect of investments greatly depends also on the sector which is invested in. Alfaro (2003) shows that FDIs in the primary sector (agriculture, mining) negatively affect overall economic growth, while FDIs in the manufacturing industry positively affect growth. Effects of FDIs in the services sector are ambivalent. One of the possible explanations of these empirical findings may be that investors in the manufacturing industry create linkages with local suppliers and that indirect investment effects result in the increase of overall growth, while investors in the primary sector do not forge practically any links with local suppliers.

It has been noted that most local authorities in Serbia almost exclusively focus on direct investment effects (e.g. number of new jobs) when they design investment incentives (e.g. subsidies for investors). Although direct effects are without doubt very important, we are of the view that an investment incentives policy could affect economic growth to a greater extent if it also took into account the indirect effects.

The research regarded indirect investment effects primarily as the degree of integration of local suppliers in the network of the company (or new business project) launched by the investment. Effects such as “spillover” of technology and know-how, bolstering competition or efficient restructuring of the local economy were outside the scope of the research.

3. Methodology

Investment multipliers at the national or regional level are often calculated by the use of input-output tables. In the US, for instance, detailed input-output tables are produced by the Bureau of Economic Analysis. The detailed tables are produced every five years for a large number of industries and regions in the US, while less detailed tables are produced every year.¹ In the case of EU countries, detailed input-output tables, which are also updated every five years, are published by Eurostat². The production of input-output tables is a very complex procedure necessitating in detailed and reliable data on the whole economy. Producing them requires considerable resources usually available only to national statistics agencies.

Given that the design of such tables exceeds the scope of researches like this one by far, its authors opted for a simpler methodology allowing for a sufficiently reliable assessment of multipliers in the target industries and municipalities. The approach used in the research is based on the LM3 (Local Multiplier 3) methodology developed by the British think tank New Economics Foundation (NEF)³.

3.1 Original LM3 Methodology⁴

The LM3 methodology is based on surveys of companies and their employees and suppliers to establish their spending patterns. Spending is split into two main components: local and non local. The calculation of the multiplier is achieved by adding up all local spending of money in several spending rounds. The main LM3 methodology covers three money spending rounds.⁵

The research based on the LM3 methodology is conducted in five steps (NEF, 2002a; 2002b):

1. The local area is defined (in the research, the municipalities were taken as the local areas for calculating the municipal multipliers and all of Serbia was taken as the local area selected for calculating multipliers for specific industries);
2. The incomes of the selected local companies are identified and measured (first spending round);
3. Surveys are conducted to establish what part of the income of the selected companies is spent locally (on local suppliers and local workforce) and what part non-locally (second spending round);
4. Surveys of local suppliers and workers are conducted to establish how much of the initial money was again spent locally (third spending round);
5. All results are added up and the LM3 multiplier value is calculated;

The described process is presented in Graph L2-1. Local money flows are represented by *darker* arrows. Money flows leaking from the local area are represented by *lighter* arrows. Once the survey establishes all the necessary amounts, the multiplier value is calculated by adding up all local money flows and the sum is divided by the initial local money flow in the first round:

$$\text{LM3} = \frac{\text{Round1} + \text{Round2} + \text{Round3}}{\text{Round1}}$$

1 See <http://www.bea.gov/newsreleases/industry/io/ionewsrelease.htm>

2 See http://epp.eurostat.ec.europa.eu/portal/page/portal/esa95_supply_use_input_tables/introduction

3 See <http://www.neweconomics.org/publications/money-trail>

4 This paper gives a brief outline of the LM3 methodology. A more detailed description of the methodology is available in the main Report on the research, accessible at <http://www.mega.ui-serbia.org/kbase/sr/home.html>

5 The more spending rounds are covered, the more precise the assessment of the multiplier values, but such coverage would significantly increase the logistical requirements of the research. NEF experts have established that covering three rounds of spending provides an optimal balance between the reliability of the results and the complexity of the research.

3.2. Modifications of the LM3 Methodology

Some modifications of the original LM3 methodology were made in implementation of part of the research. As mentioned, the research essentially comprised two independent researches using similar methodologies. The *first* sub-research involved the calculation of local multiplier values for the three target municipalities. The original LM3 methodology, as described in the previous section, was used in this sub-research.

In the *second* sub-research, we calculated the local multiplier values for the five selected industries. All of Serbia was taken as the local economy in this sub-research. Therefore, the money leaking out of the local economy is actually the money spent on imports. The LM3 methodology was modified in this sub-research to obtain more precise results. We presumed that all the money spent by the workers is spent in Serbia i.e. within the local economy. This approximation was tested in practice and showed that it does not introduce any significant errors in the final multiplier value. This presumption obviated the need to survey the company workers. Instead, we added another spending round regarding suppliers i.e. “suppliers of suppliers” of the initial companies. Given the modification i.e. the addition of another spending round in the research of industries, the multiplier was calculated according to the following formula:

$$\text{LM3} = \frac{\text{Round1} + \text{Round2} + \text{Round3} + \text{Round4}}{\text{Round1}}$$

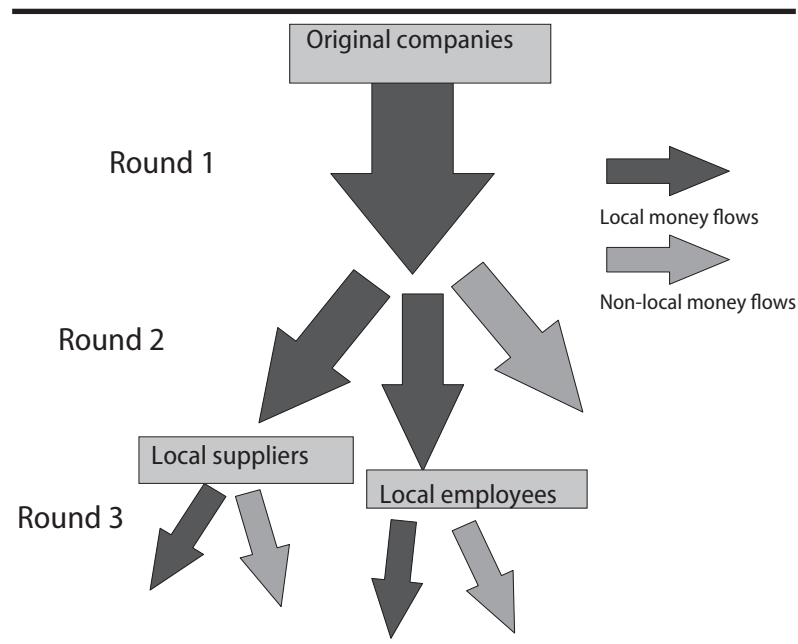
3.3. Selection of Industries and Municipalities and Sample Design

Three municipalities - Kruševac, Subotica and Šabac – were selected for the part of the research in which we *calculated multiplier values in municipalities*. The selection of municipalities was based on several criteria (a) size – we opted for municipalities of approximately the same size to prevent this factor from influencing the results (*ceteris paribus* bigger municipalities should always have greater multiplier values than smaller ones) and for municipalities ranking amongst the larger but not the largest municipalities; (b) geographic dispersity and (c) inclusion in the MEGA program. The following three municipalities were ultimately selected: Kruševac, Subotica and Šabac.

The part of the research focusing on industries covered five different industries: food processing industry, textile and apparel industry, chemical industry, wood-processing industry and tourism⁶. A number of criteria were also taken into consideration during the selection of the industries. One of them was that the sample includes both labor intensive and capital intensive industries. We also took into consideration the listed industries' share in overall output, their growth rates, growth potentials et al.⁷

The 2008 National Bank of Serbia Solvency Center financial reports database was used as the source of information in the selection of *companies* to be included in the sample.⁸ In designing the sample, we departed from the presumption that given the objective of the research, we needed to select active companies that can generate activity in supply chains. Given the research objectives, it would have been senseless to survey very small or inactive companies with modest supplier chains in the first stage. We thus defined a criterion for the so called “good” companies

Graph L2-1: Overview of the Basic LM3 Methodology



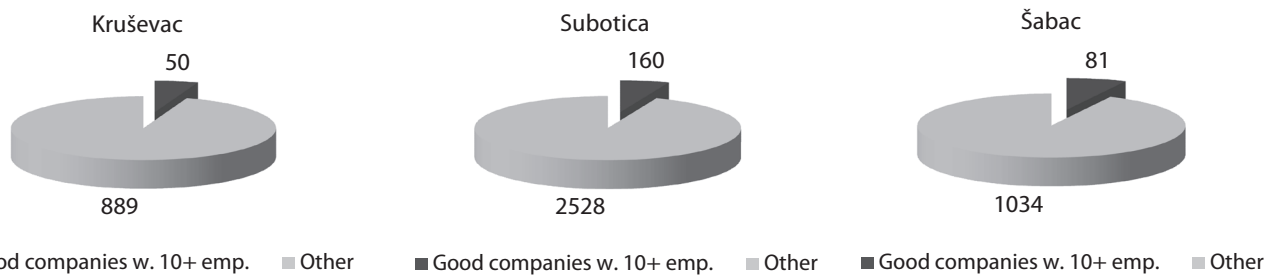
⁶ See Footnote 4.

⁷ *Ibid.*

⁸ All companies in Serbia had to file their financial reports with the Solvency Center. As of this year, companies have to submit their financial reports to the Business Registers Agency.

in the following way: the “good” companies had net profits, recorded increases in overall revenues and fixed assets and employed a greater (or identical) number of workers in 2008 compared with 2007. Companies with 10 or more employees were taken into consideration for sample. The total number of companies in the target sectors and target municipalities and the number of companies meeting the mentioned criteria are shown in Graphs L2-2 and L2-3.

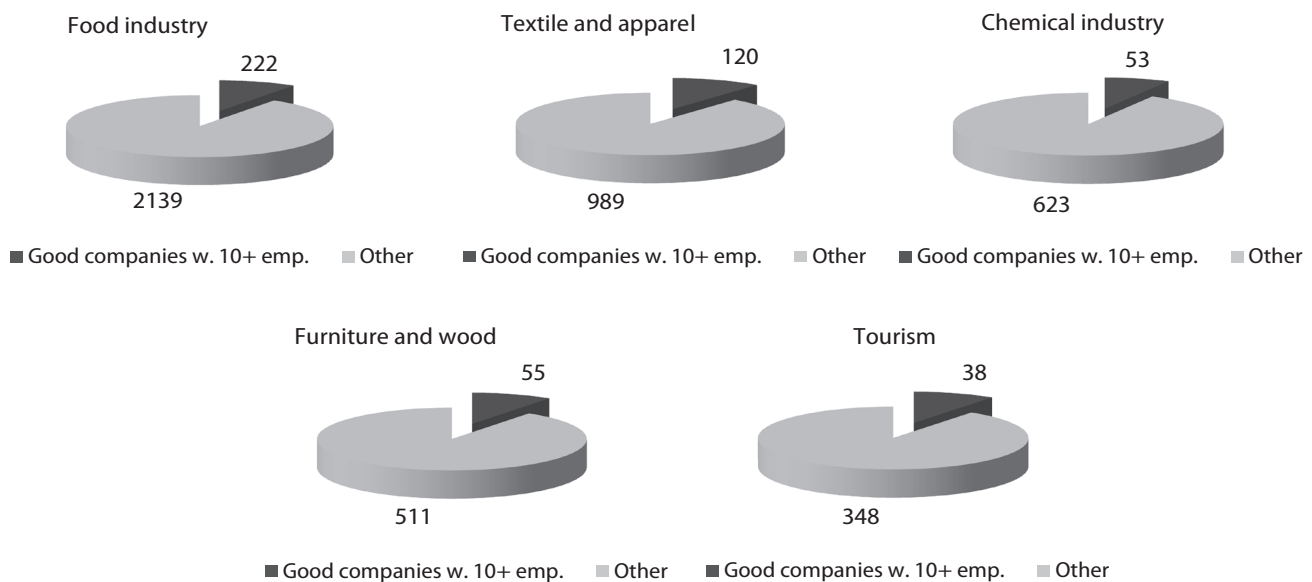
Graph L2-2. Number of “Good” Companies With Ten or more Workers and all Other Companies in Target Municipalities



Source: NBS Solvency Centre financial reports database and authors’ calculations.

Note: “good” companies are those that had net profits, recorded increases in overall revenues and fixed assets and employed a greater (or identical) number of workers over the previous year.

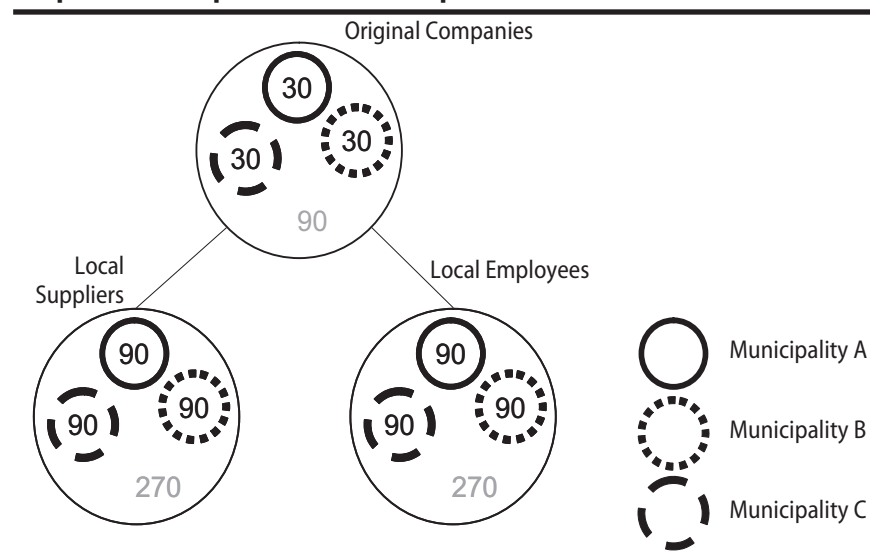
Graph L2-3. Number of “Good” Companies With Ten or more Workers and all Other Companies in Target Industries.



Source: NBS Solvency Centre financial reports database and authors’ calculations.

Note: “good” companies are those that had net profits, recorded increases in overall revenues and fixed assets and employed a greater (or identical) number of workers over the previous year.

The sampling plan for the part of the research regarding municipalities is shown in Graph L2-4. The sample comprised 30 initial companies per municipality. These initial companies were selected randomly, while the sectors the companies belong to were selected to reflect the structure of the economy of the given municipality. The major suppliers of the companies were identified during the company surveys. These data were used to design the sample for the following spending round. In principle, three main suppliers of each company in the first round were surveyed. Alternatively, suppliers accounting for at least 70% of local inputs to original companies were interviewed. Also, three employees in each of the original companies, i.e. a total of 90 employees per municipality were interviewed. The sampling plan for the part of the research regarding industries was similar to the plan for municipalities. Thirty companies in each target industry were initially selected. The companies were selected under the following criteria: that their geographic and size distributions reflect their general distributions in Serbia. As Graphs L2-2 and L2-3 show, the sample of the 30 original companies ensured very good coverage of companies meeting the defined criteria (“good” companies with 10 or more employees). The survey of original companies included the identification of their chief suppliers, and, as in the research of municipalities, involved interviews of three leading suppliers of each company in the first round. Given that another spending round was added in this part of the research, surveys of suppliers involved the identification of their chief suppliers, and one (or two) of the leading “suppliers of suppliers” were interviewed in this additional round.

Graph L2-4. Sample Plan for Municipalities**3.4. Questionnaire Design**

The research questionnaires were designed on the basis of the original LM3 methodology but were modified to the local circumstances. Questionnaires for companies (“original” companies and suppliers) were designed to comprise all major company expenditures. They were structured to reflect the items in the financial reports (Income Statement, Balance Sheet, Statement of Cash Flows and Statistical Annex) which all companies must file every year. This facilitated the companies’ replies to questions about their expenditures. All expenditure items were divided into local and non-local outlays.

For instance, the companies were asked how much they spent on raw materials every year. They were then asked what percentage of the expenditures for raw materials went to local and what percentage to non-local suppliers. The detailed replies for the original companies and their suppliers in the Subotica municipality⁹ are shown as an illustration of the results in Table L2-5. The main spending categories in the employee questionnaires (please recall that employees were surveyed only in the part of the research regarding municipalities) were structured similarly to the questionnaire of the Serbian Office of Statistics Household Budget Survey, which enabled us to compare for consistency the obtained results with those in the well-known survey.

Table L2-5. Detailed Company Spending Breakdown

	Initial companies				Suppliers			
	% of overall costs	% of category spent locally	% of overall local costs	% of overall non-local costs	% of overall costs	% of category spent locally	% of overall local costs	% of overall non-local costs
Wages and Salaries	18%	93%	33%	2%	7%	97%	14%	0%
Raw materials and intermediate goods	11%	53%	12%	11%	25%	61%	31%	20%
Finished goods	30%	26%	15%	45%	48%	40%	39%	57%
Machinery and equipment	7%	10%	1%	13%	7%	4%	1%	13%
Vehicles (cars, trucks, tractors, etc)	7%	47%	6%	7%	1%	6%	0%	2%
Energy and fuel	5%	3%	0%	11%	2%	4%	0%	5%
Telecommunications	2%	7%	0%	3%	0%	12%	0%	1%
Utilities	1%	88%	2%	0%	0%	86%	1%	0%
Rent costs	1%	79%	1%	0%	1%	92%	1%	0%
Buildings and similar investments	7%	99%	13%	0%	1%	82%	2%	0%
Financial costs	2%	80%	3%	1%	2%	95%	5%	0%
IT equipment (computers, printers, etc)	3%	43%	2%	3%	1%	59%	1%	0%
Business service costs	1%	48%	1%	1%	1%	98%	1%	0%
Maintenance costs	3%	83%	5%	1%	1%	96%	2%	0%
Marketing and promotional costs	1%	64%	2%	1%	1%	40%	0%	1%
Office supplies	2%	98%	4%	0%	1%	94%	2%	0%
Total	100%	51%	100%	100%	100%	50%	100%	100%

⁹ This paper does not include detailed tables for all industries and municipalities for lack of space. The tables with the detailed results are available in the original Report, accessible at <http://www.mega.ui-serbia.org/kbase/sr/home.html>

4. Overview of Research Results

4.1 Results for Municipalities

The municipal multiplier values are given in Table L2-6. The greatest multiplier was recorded in the municipality of Kruševac where it stood at 2.51. This result can be interpreted in the following way: every investment generating 1 dinar of economic activity in the municipality has an overall effect of 2.51 dinars on the local economy. In other words, for every dinar of directly generated economic activity, another 1.51 dinars of economic activity are indirectly generated in the Kruševac local economy. This finding corroborates one of our initial hypotheses: indirect investment effects often outweigh direct effects and have to be taken into account during the design of investment incentives.

Table L2-6. Multiplier Values in Target Municipalities

	LM3
Kruševac	2.51
Subotica	1.75
Šabac	1.83

Table L2-7 shows the breakdown of the main company expenditures in the target municipalities, notably the breakdown of costs of Level 1 companies.¹⁰ As can be noted, as much as 89% of the money spent by Level 1 Kruševac companies stays in the municipality. On the other hand, nearly half of the money Level 1 Šabac and Subotica companies stays in these municipalities, while the other half “leaks” out of the local economies. Most of the money leaking out of the two municipalities is spent on raw materials, intermediate goods and finished products. These two items account for 80% and 56% of the money leaking out of Šabac’s and Subotica’s Level 1 local economies respectively.

Table L2-7. Spending Breakdown by Level 1 Companies in Target Municipalities

	% of overall costs	% of category spent locally	% of overall local costs	% of overall non-local costs
Kruševac				
Wages and Salaries	16%	97%	19%	2%
Raw materials and intermediate goods	19%	55%	13%	48%
Finished goods	28%	99%	34%	2%
Other	37%	77%	35%	48%
Subotica				
Wages and Salaries	18%	93%	33%	2%
Raw materials and intermediate goods	11%	53%	12%	11%
Finished goods	30%	26%	15%	45%
Other	41%	51%	41%	41%
Šabac				
Wages and Salaries	9%	84%	15%	3%
Raw materials and intermediate goods	26%	25%	12%	41%
Finished goods	35%	48%	32%	39%
Other	30%	73%	42%	17%

The results may be explained in various ways. One may regard the position of the target municipalities. Namely, Šabac and Subotica are close to the state border (with Bosnia and Hungary respectively). Moreover, both municipalities are located next to the highways. Thanks to the proximity of the border and the highways, it is plausible that the companies in the two municipalities can easily integrate with more distant complementary suppliers. On the other hand, Kruševac is somewhat more isolated compared with these two municipalities and the local companies rely on cooperation amongst each other to a greater extent. Furthermore, a greater number of national retail and wholesale chains were present in both Šabac and Subotica than in Kruševac at the time the research was conducted. It is logical to presume that retail and wholesale chains operating at the national level rely more on the centralized purchase of goods than local retailers and wholesalers do. Centralized distribution entails also greater “leakage” of money from the municipalities and, thus, lower local multiplier values.

¹⁰ See footnote 9.

4.2 Results for Industries

The calculated multiplier values for the target industries are given in Table L2-8. The Table shows that three industries (the food processing industry, tourism and the textile and apparel industry) have multipliers ranking at around 3, while two industries (chemical and wood-processing industries) have somewhat lower multipliers, standing at around 2.5

Table L2-8. Multiplier Values in Target Industries

	LM3
Chemical industry	2.45
Furniture and wood	2.53
Food industry	3.09
Textile and apparel	2.97
Tourism	2.99

Table L2-9 shows the breakdown of spending on the main items amongst Level 1 companies in the target industries.¹¹ The Table also indicates why the multiplier values in the five industries differ. Tourism and the Textile and apparel industry, which have higher multipliers, are considered labor intensive industries, as Table L2-9 indicates as well. Namely, wages account for around one-fourth and one-third of the expenses

of the companies in the two industries respectively. The high multiplier values in these industries are explained by the fact that spending on wages is fully local. Although spending on wages accounts for a significant share of overall costs of companies in the two industries in general, it should be noted that the wages of workers, particularly in the textile industry, are generally low and the question is what quality of life the workers can afford.

Table L2-9. Spending Breakdown by Level 1 Companies in the Target Industries

	% of overall costs	% of category spent locally	% of overall local costs	% of overall non-local costs
Chemical industry				
Wages and Salaries	16%	96%	21%	2%
Raw materials and intermediate goods	42%	51%	29%	76%
Finished goods	8%	93%	10%	2%
Other	34%	84%	39%	20%
Furniture and wood				
Wages and Salaries	15%	100%	19%	0%
Raw materials and intermediate goods	33%	70%	29%	50%
Finished goods	17%	55%	12%	39%
Other	34%	93%	40%	11%
Food industry				
Wages and Salaries	11%	100%	12%	0%
Raw materials and intermediate goods	32%	92%	32%	41%
Finished goods	30%	89%	29%	53%
Other	27%	99%	28%	5%
Textile and apparel				
Wages and Salaries	24%	99%	29%	1%
Raw materials and intermediate goods	23%	54%	15%	61%
Finished goods	19%	80%	19%	23%
Other	34%	92%	38%	15%
Tourism				
Wages and Salaries	31%	100%	34%	0%
Raw materials and intermediate goods	10%	100%	11%	0%
Finished goods	6%	98%	6%	2%
Other	53%	88%	49%	98%

The remaining industry with a high multiplier is the food-processing industry. The spending breakdown shows that workers' wages account for a comparatively much smaller percent of overall costs than in the first two industries and that the high multiplier value cannot be ascribed to them. The high multiplier value in this industry is most proba-

¹¹ See footnote 9.

bly the consequence of the fact that the main suppliers of the food-processing industry are agricultural companies. From the comparative point of view, agriculture in Serbia is a solidly developed and established sector. Companies in the food-processing industry can obviously rely on local suppliers to a great extent (as much as 90% of the food-processing industry expenses on raw materials and intermediate goods and finished products go to local suppliers) wherefore this industrial branch has a high multiplier value.

The chemical and wood-processing industries, on the other hand, have somewhat lower multiplier values. As regards the chemical industry, the main reason lies in the fact that nearly half of the expenses regard imported raw materials and intermediate goods (Table L2-9). As regards the wood-processing and furniture industry, apart from raw materials and intermediate goods, a considerable share of the money is leaked out of the country and spent on the finished products this industry needs. The two industries' domestic supplier networks are obviously not as developed as those of the food-processing industry.

5. Conclusions and Recommendations

The research of investment multiplier effects is the first and pioneer research of the kind in Serbia. The analysis provided us with a quantitative indicator of the effects of investments and the spending patterns in specific communities and industries. Furthermore, the LM3 methodology, which was elaborated in detail and adapted to the nature of Serbia's economy, proved easy to apply. Given that a relatively simple and inexpensive method of data collection and analysis is at issue, LM3 can easily be used by central and local authorities to advance their investment incentives policies and the development of the SME sector and supplier networks. The methodology presented allows for a systematic analysis of the direct and indirect effects of investments in specific economic sectors or cities, the importance and impact of which are often disregarded.

Analysis of the results for the *cities* of Kruševac, Šabac and Subotica lead to the conclusion that Kruševac, with a multiplier value of 2.51, has companies which rely on the local supplier networks to a greater extent than Šabac (with a multiplier value of 1.81) or Subotica (with a multiplier value of 1.75). Moreover, Šabac and Subotica are just off the highway and near the state borders, and, it is plausible that, because of their positions and better transportation links, companies in these municipalities more easily opt for complementary suppliers in other parts of the country or in Croatia, Bosnia-Herzegovina and Hungary.

The analysis of the results obtained for the industries shows that they can be divided into two subgroups. The first comprises the food-processing, textile and apparel and tourism industries and the second the chemical and wood-processing and furniture industries. The first group is made up of two labor intensive branches – tourism and the textile and apparel industry; the high multiplier values in these industries are ascribed to the fact that labor is primarily a local expense. This group also comprises the food-processing industry whose main supplier is the agricultural industry. Agriculture in Serbia is relatively well developed and food-processing companies can rely on domestic suppliers for the raw materials and intermediate goods and basic services. This is why the multiplier value in the food-processing industry is high. The chemical and the wood-processing and furniture industries in the second group rely on the import of raw materials and intermediate goods to a much greater extent. The identification of the specific raw materials and intermediate goods imported the most were beyond the scope of this research. An additional research departing from the collected and analyzed data could yield data which would provide a more detailed picture of the existing networks of suppliers in these industries in Serbia.

The following recommendations can be drawn on the basis of the analysis of the research results:

- There are currently no developed methodologies which the central and local authorities in Serbia could apply to analyze and measure all investment effects, both direct and indirect ones. Incentives for attracting investments and for the development of small and medium-sized enterprises are often designed without a prior detailed analysis of the overall costs and benefits, or solely on the basis of the analysis of direct effects. A methodology that will be capable of identifying and covering the effects of the flow of the invested money through the supplier networks needs to be developed. For instance, if the investment involves the construction of a big shopping mall, new jobs will open, but the question is how the investment will actually affect the local economy if the local suppliers are not activated in any way. The Statistical Office of Serbia or another state body should consider collecting relevant data and designing up to date input-output tables which can be used to calculate multiplier effects of investments. Moreover, databases on company activity must be more consistent and accessible to a much greater extent. At present, there are several in-

stitutions in Serbia that collect various data on corporate activity and manage databases comprising such data. There is not, however, a database with consistent data allowing for the monitoring of trends in specific economic sectors on a continuous basis (e.g. industry growth dynamics, changes in the workforce, comparison of income growth by industry at specific intervals, monitoring growth of investments in fixed assets, etc). These data would be extremely useful not only to economists, but also to institutions designing economic policies and companies when planning their future activities in the market. The data currently collected and all available databases do not help provide a proper understanding of Serbia's economy and cannot be easily used to adequately analyze its structure, dynamics and needs.

– Cities and municipalities can use the LM3 method to assess the multiplier effects of investments and their impact on the existing economic base. This tool can be applied relatively easily and may prove particularly useful in cost-benefit analyses of specific investments, particularly in cases where economic and fiscal analyses need to be prepared within specific feasibility and sustainability studies (e.g. when drafting projects to be funded through IPA, preparing studies on disposition of construction land at prices lower than the market rate, etc), i.e. when designing incentives for future investors or establishing funds to support the development of small and medium-sized enterprises.

– The research results show that local self-governments need to try to understand the network of suppliers of major companies in their communities as much as they can and to eliminate all obstacles and any disruptions that may appear in the chain, because it has transpired that large companies have the greatest influence on the local economy. They encourage local economic development and ensure that the maximum amount of money stays and circulates within a specific local community. Also, insight in which raw materials and products are purchased from “non-local” companies may also prove useful in formulating incentive measures. Companies can be brought in to fill the voids resulting in the leakage of money and the existing companies can be stimulated to meet the standards and requirements to become suppliers of the large companies themselves.

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